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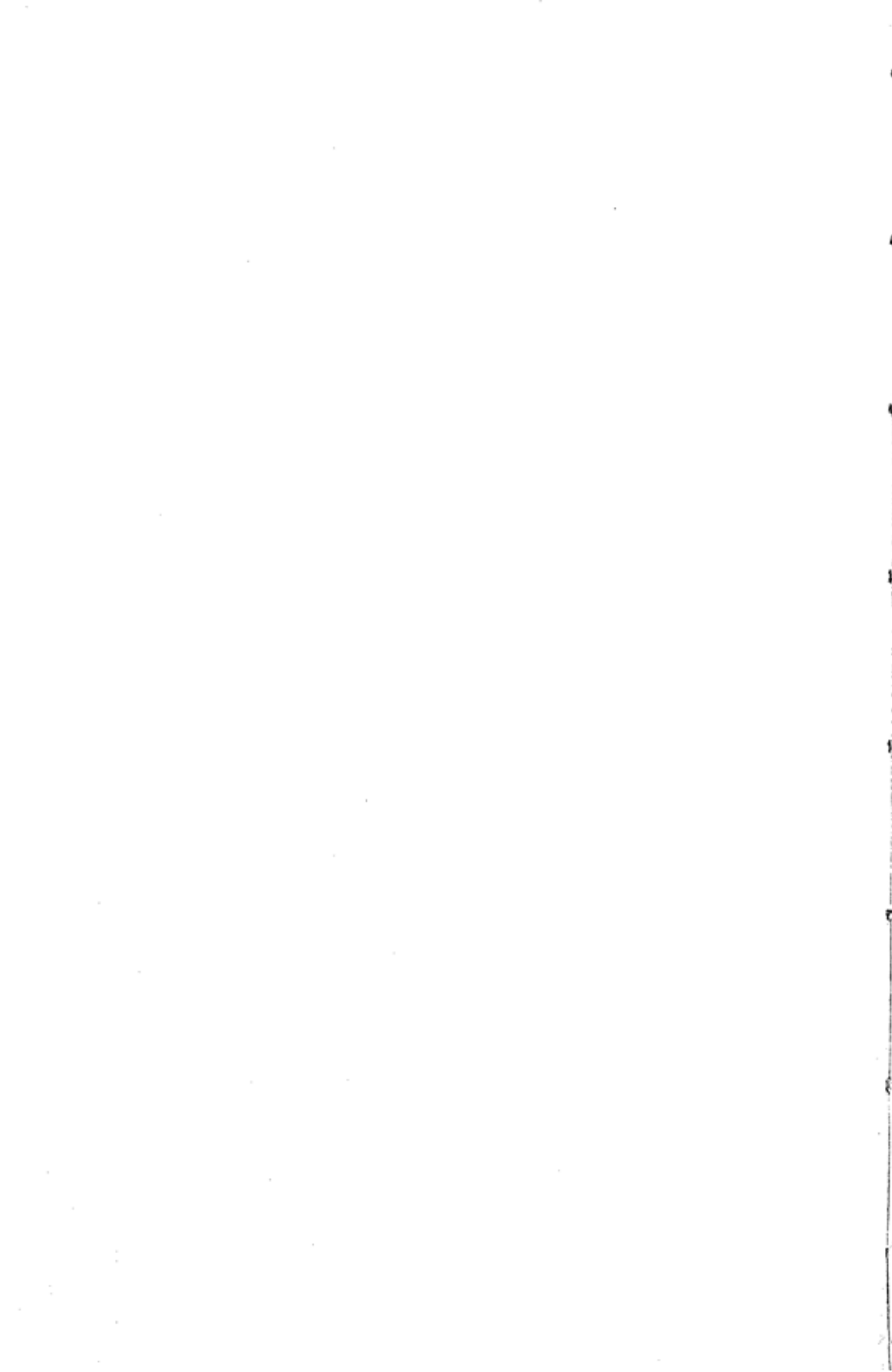
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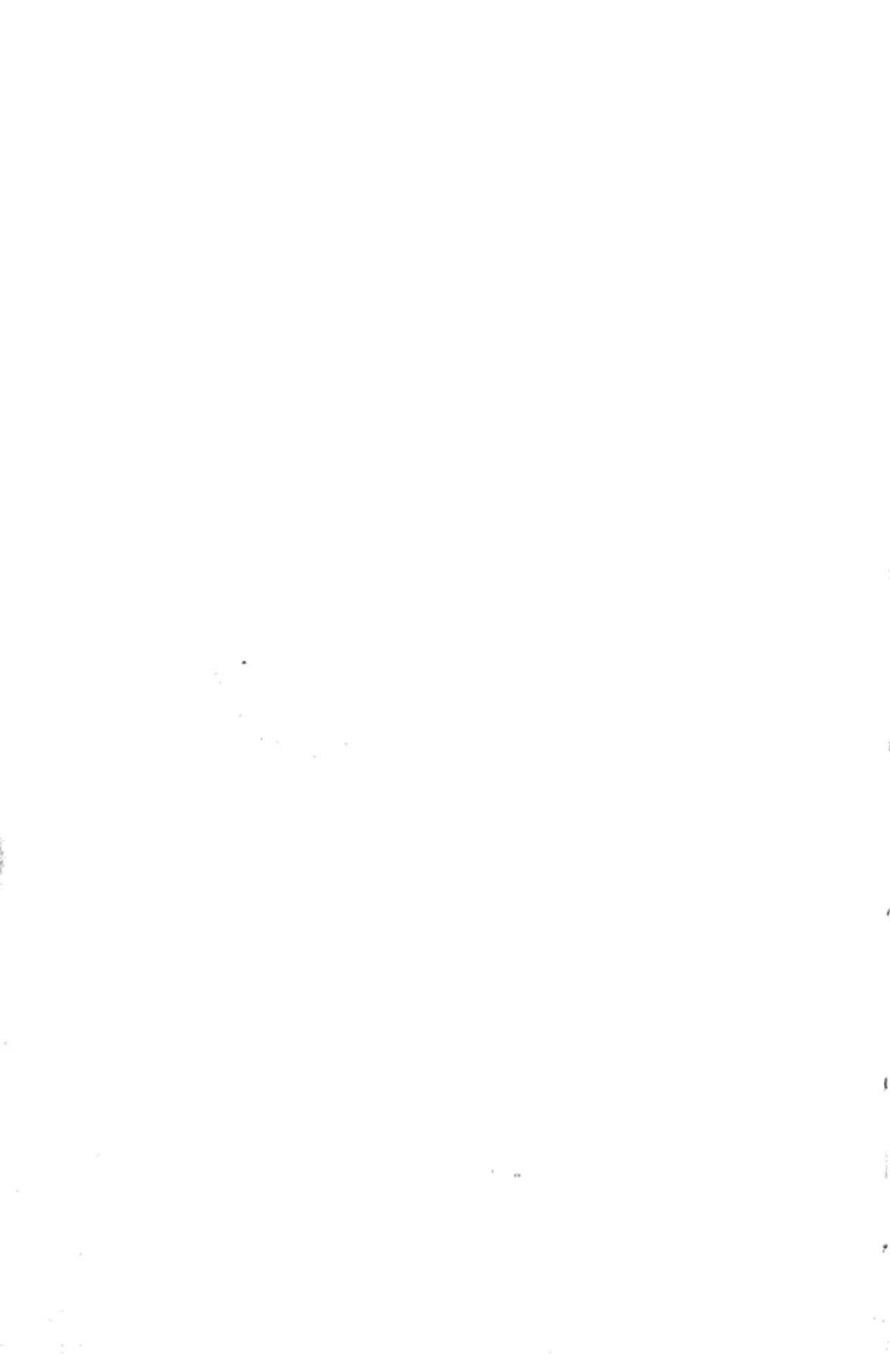
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ANALECTA ORIENTALIA



ANALECTA ORIENTALIA

POSTHUMOUS WRITINGS AND SELECTED
MINOR WORKS

OF

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IN THE UNIVERSITY OF LEIDEN

VOLUME II

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LINGUISTICS



LA PAUSE EN ARABE ET EN HÉBREU CONSIDÉRÉE AU POINT DE VUE PHONOLOGIQUE *)

Dans la phonologie de quelques langues sémitiques, on trouve un phénomène qui est appelé dans la terminologie grammaticale „*pausa*”. Celle-ci se rencontre en hébreu et en arabe, et consiste, d’une manière générale, en une prononciation différente, à la fin du mot, à la fin d’une phrase ou d’une partie d’une phrase, après laquelle on doit faire une pause, par rapport à la prononciation du même mot dans le contexte. Ce phénomène est naturellement lié aux phénomènes „*sandhi*”, qui apparaissent partout, mais dans ces cas-ci cela prend un aspect spécial.

L’aspect spécial de la pause apparaît comme l’inverse des phénomènes „*sandhi*”. Par „*sandhi*” l’on entend une influence réciproque — souvent apparente — des sons qui sont en contact dans la phrase. Aussi le *sandhi* ne peut qu’en partie être nommée un phénomène phonologique, car la fonction significative n’est souvent pas influencée par le changement des sons. La norme de laquelle on part est la forme du mot isolé, pour constater ensuite que la prononciation est différente dans le contexte. Dans les langues sémitiques ceci est différent. On part ici de la forme du mot dans le contexte, pour constater ensuite que, dans la pause, un changement a eu lieu.

Cette manière d’envisager la chose trouve sa cause dans le système sémitique d’écriture, qui primitivement n’indiquait que les consonnes. Cette écriture est par cela même spécialement faite pour la dénotation des langues sémitiques, car là, les consonnes jouent un rôle prépondérant pour la signification. Le système vocal, ou comme on préfère le dire au point de vue sémitique, la vocalisation des consonnes, est morphologiquement d’importance secondaire. Par conséquent, un mot en écriture sémitique est presque suffisamment défini, quand les consonnes en sont fixées; en soi toutes sortes de voyelles sont possibles, mais l’interprétation juste souvent apparaît sans autre de la forme même du texte. Les anciennes inscriptions sémitiques offrent uniquement des textes de consonnes et peuvent être déchiffrés avec plus ou moins de certitude. La fixation de l’ortho-

*) Traduit d’une conférence fait en hollandais pour le „Cercle de travail phonologique”, le 19me avril 1941.

graphie des consonnes a été une occupation phonologique, de laquelle les anciens écrivains pionniers sémitiques se sont acquittés d'une manière excellente. Des phénomènes „sandhi” ils n'avaient pour ainsi dire aucun ennui, car le sens du mot ou du texte dépendait entièrement des distinctions phonologiques nettes des consonnes, et aussi parce qu'une consonne finale était probablement toujours suivie d'un élément vocal. C'est justement un des points qui nous occupera par la suite.

Dans le texte des consonnes, à part un cas qui nous occupera tout à l'heure, il n'y avait pas de raison de faire une différence entre les formes contextuelles et les formes finales. Ceci changea, en ce qui concerne l'hébreu, quand les scribes juifs, les nommés „Masorètes”, qui avaient fixé le „masora” ou *textus receptus*, se décidèrent d'ajouter au texte traditionnel consonantique un système de notation pour la vocalisation. La même chose se trouva quand les savants arabes se mirent à marquer leurs textes sacrés, le Koran, de signes indiquant la vocalisation des consonnes (ils l'appelaient le „mouvement” des consonnes, car la notion de voyelle ne leur est jamais devenue claire).

Leur méthode de travail consistait donc en ceci qu'un contexte donné fut muni de signes indiquant les voyelles et d'interponctions liées à l'accentuation, et il leur semblait d'après cela que la dernière consonne, ou les dernières consonnes, d'un mot à la fin d'une période devaient être vocalisées d'une manière différente que dans le contexte. En hébreu, on devait constater souvent une autre accentuation. Et, comme cela se trouve souvent dans le travail des savants, ils ne se contentaient pas de constater les phénomènes de pause et de les fixer, mais ils commençaient aussi à normaliser l'orthographe et en indiquer la bonne manière. Les Arabes sont allés beaucoup plus loin dans ce sens que les Juifs. Les phénomènes de pause se rapportent donc principalement à la vocalisation des textes de consonnes. Par les circonstances spéciales, les savants furent à même de mettre le doigt sur certains phénomènes en rapport avec la vocalisation. Ces phénomènes ne seraient pas apparus, au moins pas d'une manière si étrange, si, par exemple, la langue en question avait été remise avec d'autres caractères ou si elle avait été transcrite de la bouche du peuple, comme langue sans histoire. Aussi dans les langues sémitiques qui ne sont pas entièrement écrites en écriture consonantique, la pause ne se trouve pas. D'un autre côté, on ne peut nier que la méthode des anciens savants, caractérisée par un traitement casuistique, a donné beaucoup trop d'importance à cette question dans la

grammaire traditionnelle. Pourtant il me paraît possible de tirer de cette image confuse des conséquences qui sont aussi importantes aux points de vue phonologique et morphologique.

Actuellement l'opinion semble dominer que les phénomènes de pause en arabe et en hébreu, au fond, n'ont pas beaucoup à faire l'un avec l'autre. J'espère prouver qu'il existe pourtant bien une telle parenté, quoiqu'elle ne se voie pas de prime abord.

Les phénomènes *arabes* de pause sont les plus simples. Ici l'accent—qui d'ailleurs en arabe n'a pas de valeur fonctionnelle—ne joue aucun rôle. La pause arabe consiste en la disparition des voyelles brèves finales des mots, donc de *a*, *i*, ou *u*, ou bien des terminaisons *in* ou *un*. La terminaison *an*, en pause, passe à *ā*. En outre, il y a un traitement spécial de la terminaison *-at-*.

1. *qátala* = *qátal* „il a tué”
qatáltu = *qatált* „j'ai tué”
jáqtulu = *jáqtul* „il tue”
muslimûna = *muslimûn* „moslîms”
al-báitu, *al-báiti*, *al-báita* = *al-báit* „la maison” (nom. gen. acc.)
2. *báitun*, *báitin* = *báit* „une maison” (nom. et gen.)
3. *báitan* = *báitâ* „une maison” (acc.)
4. *al-madīnatu*, *-ati*, *-ata* = *al-madīnab* „la ville”
madīnatun, *-atin*, *atan* = *madīnab* „une ville”

Les terminaisons *-un*, *-in*, *-an* ne se trouvent que dans les noms et indiquent une notion indéterminée. (Dans le texte consonantique le *n* de ces désinences n'est pas écrit). Elles correspondent à un suffixe sémitique qu'on retrouve en assyrien-babylonien comme *-im*, *um*, *-am*, et qui a même laissé des traces dans le sud-arabe et peut-être en hébreu.

Que ces désinences ne soient pas enregistrées dans le contexte sauf par exception s'explique probablement parce que le *n* n'est jamais suivi d'une voyelle et très souvent s'assimile à une consonne suivante. Seulement devant la terminaison *an* on écrit dans le contexte la lettre *alif*, qui au fond indique seulement la fermeture glottique ou *hamza* (ʾ), mais qui sert, en arabe, d'indice du *ā* long. En arabe, il y a encore beaucoup d'autres mots qui se terminent par *ā*. Dans tous ces cas, la théorie des grammairiens considère cette terminaison comme consonantique; la terminaison *ā* est interprétée comme *aʾ*. Que ceci ne soit pas uniquement la théorie crue, j'espère le mettre en lumière.

Que la terminaison féminine *-atu*, etc., apparaît en pause toujours comme *-ab* (indépendamment du cas), l'écriture arabe l'indique par la lettre *b*. Ceci est donc la forme en pause. Seulement, on fait connaître symboliquement que ce *b* dans le contexte doit être lu comme un *t* en y mettant deux points dessus, qui sont empruntés à la lettre arabe pour *t*. Nous aurions donc ici un cas où la manière d'écrire de la pause a pénétrée dans le contexte. Ce n'est pas si extraordinaire, parce que, à la longue, la règle se mit à dominer qu'un mot détaché doit être écrit de la manière dont il est prononcé en pause; on a vu que la même chose se présente pour les cas déjà mentionnés où une voyelle brève ou *-un*, *-in* étaient tombées. Que ceci cependant est un développement tardif, en ce qui concerne la manière d'écrire de *at*, est prouvé par les anciens manuscrits du Koran, où, très souvent, le *t* est conservé dans l'écriture.

Le fait que le *t* dans la pause est devenu un *b*, ou plus exactement, doit être prononcé comme un *b*, doit bien tenir à la position exceptionnelle que prend cette désinence *at* dans les langues sémitiques où les suffixes consonantiques sont rares. Ce *t* avait une tout autre valeur que les consonnes radicales, qui étaient clairement prononcées et indispensables à la signification du mot. Considéré au point de vue physiologique, la notation par *b* pourrait être la conséquence d'une prononciation *implosive*, de sorte que la place d'articulation ne s'entendait plus. Dans les dialectes arabes modernes, on entend à peine un *b*; il semble plutôt que le mot finit par un *a* bref. Cependant la question est de savoir si les sujets parlants réalisent le cas comme tel. Les linguistes, en tout cas, y voient un *b*, et ainsi adaptent le phénomène à leur schéma, qui exige qu'un mot en pause finisse toujours par une consonne. Nous avons déjà remarqué cela pour la terminaison *â* (ou plutôt *a*). Et enfin, cela se trouve aussi dans les règles que donnent les grammairiens pour le cas où on veut absolument conserver la voyelle finale, ou qu'on doit la conserver pour des raisons morphologiques; dans ce cas aussi on doit prononcer et écrire, après la voyelle brève finale, un *b*: *kaifah* „comment”; *emšib* „va”. Ceci sent bien le maître d'école, mais il me semble qu'il y a pourtant un sentiment linguistique réel à la base. De même les grammairiens se réalisent un *t* ou *â* long en position finale comme *iy* et *uw*.

En hébreu la situation est tout autre. Cette langue est apparentée très étroitement avec l'arabe, mais ici, depuis très longtemps, les désinences à voyelle brève sont tombées, de sorte que, au point de vue arabe, la plupart des mots ont la forme en pause même dans

le contexte. Il y a bien certaines voyelles finales brèves qui se sont conservées dans des formes verbales, mais celles-ci ne tombent pas dans la pause hébraïque. La pause hébraïque se reconnaît par des divergences dans le timbre vocal — une sorte de „Ablaut” —, et par l'accent. L'accent hébraïque n'est pas phonologique (aussi peu qu'en arabe); en général il est lié à la dernière syllabe du mot. Pourtant, dans la vocalisation de la pause, nous voyons justement cet accent changer de place. Quant au système vocal de l'hébreu, il n'est pas de beaucoup aussi simple que celui de l'arabe, où on distingue les trois voyelles *a*, *i*, *u*, qui peuvent être longues ou brèves. En hébreu, on distingue aussi ces voyelles, tandis que, en outre, il y a encore *é*, *ê*, *è* et *o* ouverts.

Les phénomènes de pause hébraïques se partagent en deux catégories: une où l'accent ne se déplace pas, et une où c'est bien le cas.

a) La syllabe accentuée du dernier mot reçoit, si la voyelle était brève dans le contexte, une voyelle longue à sa place, quelque fois accompagnée d'un changement de timbre:

1. *šāmār* = *šāmār* „il a gardé”
dibbēr = *dibbēr* „il a parlé”
2. *šāmārtā* = *šāmārtā* „vous avez gardé”
3. *ērēš* = *ārēš* „terre”
qēšēr = *qāšēr* „conspiration, union”

Au No 3, nous avons affaire à des mots qui se terminent par une consonne double, mais où la difficulté de prononciation est résolue par une voyelle intercalée brève (ou peut-être même murmurée) *e*; en même temps, le *a* se transforme en *è*, qui reprend dans la pause sa forme originelle.

Cette première catégorie de la pause hébraïque est phonologiquement non-pertinente; les formes de mot qui apparaissent dans la pause ne sont pas de sorte qu'ils ne puissent pas se trouver dans le contexte.

Du moins le type *šāmār* est une forme nominale très connue, par ex. *dābār* „mot”. Seulement ce dernier type est limité dans le contexte à des formes nominales, (c-*v*-c-*v*-c), tandis que le type c-v-c-v-c se trouve seulement dans des formes verbales dans le contexte. On pourrait dire que les formes nominales sont des formes de pause qui ont trouvé leur chemin dans le contexte. Les derniers temps on a beaucoup écrit sur cette question, mais je n'ai pas besoin d'y insister ici. L'allongement de la voyelle peut provenir du rythme de la phrase, et se trouve aussi dans de tout autres langues. En arabe aussi, on

trouve parfois dans des poésies que la voyelle finale est allongée, mais en arabe cela n'appartient en tout cas pas aux phénomènes relevant de la pause.

b) Dans la seconde catégorie l'accent passe à la syllabe qui précède la consonne finale du mot et effectue ici, dans la plupart des cas, le renforcement ou l'allongement de la voyelle:

1. $\text{'ánôkí} = \text{'ánôkí}$ „je”
 $\text{'attá} = \text{'áttá}$ „vous”
2. $\text{šámárá} = \text{šámárá}$ „elle gardait”
 $\text{šimá'ú} = \text{šimá'ú}$ „entendez!”
 $\text{yíšmórú} = \text{yíšmórú}$ „ils gardaient”
 $\text{d'bárəká} = \text{d'bárəká}$ „votre parole”
3. $\text{pérí} = \text{pérí}$ „fruit”
 $\text{hólí} = \text{hólí}$ „maladie”
 $\text{y'bí} = \text{y'bí}$ „il est”
 $\text{'aní} = \text{'aní}$ „je”
4. $\text{bəká} = \text{bák}$ „avec toi”
 $\text{ləká} = \text{lák}$ „à toi”
5. $\text{wayyámôt} = \text{wayyámôt}$ „et il mourut”

Tels que ces exemples se présentent, ils paraissent assez hétérogènes, mais ils sont pourtant tous en accord avec la description donnée ci-dessus, à savoir, que l'accent se déplace vers la syllabe qui précède la consonne finale. On peut remarquer que souvent les voyelles „primitives”, qui ont dû se trouver là, réapparaissent comme le témoignent certaines formes du paradigme, mais qui par suite du rythme dans la phrase, ou bien ne pouvaient pas garder l'accent, ou même avaient passé à š'wá . Nous avons aussi pu constater le retour des voyelles originelles dans le cas a) sub 3.

Il est clair qu'à la fin de la phrase un autre rythme prévalait que dans le contexte. Ou bien y avait-il encore un autre principe sur lequel reposait le changement d'accent? Je voudrais faire remarquer que dans la position de pause la dernière voyelle du mot en général n'a plus d'importance et que le mot est traité comme s'il finissait par la dernière consonne. Or ceci est le même phénomène qui marque aussi le mot en pause en arabe. La ressemblance est la plus remarquable là où, même en hébreu, la voyelle finale tombe, — comme dans les groupes de préposition bák et lák , qui à ce point de vue se trouvent en accord parfait avec les groupes correspondants arabes bik(a) et lak(a) .

Il est vrai qu'en hébreu c'est l'accent qui fait principalement

constater la pause, tandis qu'en arabe cela ne joue absolument aucun rôle. Pourtant une comparaison des phénomènes des deux langues doit conduire à la conclusion que les faits d'accent ne sont que concomitants, et que le principal est que le mot, phonologiquement parlé, se termine par la dernière consonne, qui est ici un *signe démarcatif final*.

Ainsi nous en arrivons à expliquer le phénomène de pause dans les deux langues par un *principe structural*, selon lequel un mot isolé ou une phrase complète ne peut se terminer autrement que par une consonne, de sorte que, ce qui suit éventuellement n'ait plus de valeur fonctionnelle.

La situation est la même ici que pour les règles qui dominent le *commencement du mot*. Dans bien des langues, comme on sait, deux consonnes consécutives ne sont pas admises au commencement du mot. En arabe aussi, c'est le cas, et ici, des règles pareilles valent pour le traitement du commencement comme pour la fin du mot, pour la pause. Il y a ici, en effet, beaucoup de cas où un mot commence bien par une double consonne, ou par une consonne doublée, à savoir, partout où le signe du „défini” syntactique (habituellement nommé l'article) précède un substantif. En réalité, l'article n'est pas *al*, comme on l'apprend en général, mais consiste en un renforcement ou un redoublement de la première consonne, qui, pour les consonnes non-dentales, est dissimilé en *l* préfigé. Le *a* de *al* n'y est ajouté que quand le mot en question se trouve au commencement d'une période. Dans le contexte, la double consonance ne présente aucune difficulté, parce qu'elle est toujours précédée d'une voyelle. Un bon exemple est fourni par la formule mahométane bien connue: „Au nom d'Allah, le charitable, le miséricordieux”. Ceci est rendu en arabe par les caractères suivants:

b-s-m-²-l-l-h-²-l-r-ḥ-m-n-²-l-r-ḥ-y-m

et prononcé:

bismillābirrahmānirrahīm

En séparant les mots on obtient:

b(i) ism(i) allāb(i) arrahmān(i) arrahīm(i)

Une autre simplification de la prononciation consiste en ceci que la voyelle finale est de nouveau intercalée entre les deux consonnes finales, soit avec une certaine réserve. Ainsi le *a* ne peut être intercalée que si la dernière consonne est un *hamza*, donc *ḡuzʿ(a) = ḡuzʿa*. En suite, on peut avoir: *bakr(u) = bakur*; *bakr(i) = bakir*. A propos du traitement casuistique de ces cas, les scribes ne sont pas non plus d'accord; mais on a bien l'impression que le timbre de la voyelle intercalée est

plutôt indifférent. Il semble aussi, d'après les exposés, que cette manière de résoudre la difficulté de prononciation se rencontre assez rarement. Et, en effet, c'est aussi le cas dans la plupart des dialectes arabes modernes. Ici, la dernière des deux consonnes est ordinairement prononcée comme si elle introduisait une nouvelle syllabe de la manière indiquée ci-dessus. La même chose se trouve, au fond, pour une consonne finale précédée d'une voyelle longue: *salā-m*. Ici encore on peut remarquer la valeur pratique du point de vue théorique déjà nommé, qu'une voyelle longue, au fond, se compose de deux éléments: un élément vocal, suivi d'un élément consonantique.

On sait qu'un grand nombre de mots arabes ont passé dans les autres langues parlées par des peuples mahométans. Or ici, il est curieusement de règle qu'une voyelle est intercalée partout où la prononciation livre des difficultés, ou plutôt, où le système phonologique ne la supporte pas. Je donne quelques exemples du turc: Ar. *qism* = T. *kısm*; Ar. *şadr* = T. *şadır*; Ar. *naw'* = T. *nevi*; Ar. *kufr* = T. *küfür*. Mais Ar. *ḥarf* reste T. *harf*, parce que le système phonologique turc admet la combinaison liquide + sourde à la fin du mot. Ce qui se trouve dans les langues nommées ci-dessus est la règle en hébreu. Non seulement en pause, mais aussi dans le contexte — les désinences ayant disparu déjà bien avant — une voyelle est intercalée entre les deux consonnes originairement finales. Cette voyelle est marquée par le signe pour *è*, qui s'appelle *šəgôl*, et c'est pourquoi on parle dans la grammaire hébraïque, de „formes à *šəgôl*”. En outre, il peut se présenter des changements dans la voyelle thématique du mot même: Ar. *malē* = H. *mèlèk* „roi”; Ar. *ard* = H. *èrèš* „terre”; Ar. *sifr* = H. *séfer* „livre”; Ar. *qudš* = H. *qôdèš* „sanctuaire”. Au No 3 de la première catégorie des formes hébraïques en pause j'ai déjà cité quelques-unes de ces formations, à savoir celles où le *a* originel réapparaît en pause, indiqué par le signe pour *â* long: *èrèš* = *ârèš*.

Dans le cadre de ces observations je ne peux pas expliquer la conservation de cette voyelle autrement que par le fait que le mot en question est plus rigoureusement raccourci en pause que dans le contexte, de sorte que la voyelle *šəgôl*, dans le premier cas, ne pouvait avoir la même influence assimilatrice. En général, on donne comme explication l'accentuation plus forte; celle-ci ne peut probablement pas être niée, mais elle me semble un phénomène concomitant, à côté de la loi structurelle plus primaire selon laquelle les voyelles qui apparaissent après la consonne finale ne jouent aucun rôle.

On a déjà démontré que beaucoup de formes hébraïques, jugées au point de vue arabe, sont au fond déjà des formes en pause, et que, pour certaines catégories de mots, les formes hébraïques en pause se trouvent même dans le contexte. C'est aussi le cas en arabe. Ici, les *impératifs* se terminent toujours sans voyelle: *uqtul* „tue”, et aussi certains mots de caractère interjectif, comme *na'am* „oui”. Là seulement où, dans le contexte, une consonne double ou doublée pourrait suivre, on y ajoute une voyelle brève: *uqtuli'l-kalb* „tue le chien”. C'est compréhensible que les mots de ce type, qui par leur signification sont, dans la plupart des cas, les derniers mots d'une période, prennent, par leur nature même, la forme en pause. Ces mots offrent un matériel un peu plus sûr pour étudier les phénomènes de pause en rapport avec les lois de structure, parce que les règles ordinaires de pause, fixées par les savants, sentent trop le cabinet d'étude.

Or il y a des cas où l'impératif, pour des raisons morphologiques, se termine par une voyelle brève qui, pour la bonne compréhension du mot, ne peut pas être rejetée: *imši* „va!”. En pause, on doit ajouter ici, selon les indications données ci-dessus, un *h* (proprement dit un élément consonantique réalisé comme *b*): *imših*. Plus typique encore est le cas où la voyelle brève finale est la seule voyelle du mot, comme dans *qi* „fais attention”; ce mot, et d'autres pareils, s'écrivent toujours, même dans le contexte, avec *h* : *qih*.

En hébreu, on rencontre aussi des cas semblables, qui cependant ne frappent pas autant, parce que les anciennes terminaisons ont déjà presque toutes disparu. On notera pourtant le cas d'un impératif tel que *g'leḥ* „dévoile”, où de même un *h* vient compléter le mot.

Après la discussion, l'explication et la comparaison des phénomènes de pause en arabe et en hébreu, on pourra faire tout d'abord l'observation que nous sommes en état, par les circonstances, de mettre le doigt sur la tendance plus ou moins consciente, qu'on trouve dans toutes les langues, pour arriver à un contour plus distinct du „mot”. Des flots changeants de la mer qu'est le contexte, le mot doit être pêché dans son individualité devenue consciente. Et on essaie de faire cela en liant le mot à une forme phonologique fixe. C'est une tendance qui existe dans toutes les langues, mais qui n'atteint un certain degré de conscience que quand une langue est mise par écrit et qu'on sent le besoin, dans cette écriture, de distinguer les „mots” les uns des autres. Dans les langues sémitiques parlées, c'est comme si on parvient à cette conscience en deux étapes, par la circonstance spéciale, qu'on a eu ici, en premier lieu, une écriture consonantique

et que plus tard une vocalisation y a été ajoutée. J'attire l'attention sur le fait que je présente la chose au fond trop simplement, car, justement en arabe, déjà avant la vocalisation l'habitude existait d'écrire les consonnes appartenant à un seul mot en les liant les unes aux autres, par quoi on était arrivé à des formes spéciales pour les consonnes au commencement, au milieu et à la fin du mot. Mais je ne puis insister sur les commentaires qu'on peut faire sur ces développements.

Par l'individualisation du „mot” apparaissent des lois structurales qui ont rapport au commencement et à la fin du „mot”. Cette phase est précédée par la réalisation du commencement et de la fin de la période parlée, et c'est cette phase intermédiaire qu'on reconnaît surtout en arabe. La fin du processus consiste en la fixation phonologique de la période parlée la plus brève, le „mot”. Evidemment on ne peut pas donner une définition d'un „mot” en termes générales; c'est que cette définition prend une tout autre tournure qu'on l'entreprend au point de vue de la sémantique, de la morphologie, ou de la syntaxe. Dans le cas qui nous occupe ici, il s'agit du détachement de ce que je voudrais nommer le „mot phonologique”, un composé de phonèmes qui possède une structure propre. Je préférerais employer ici le terme „morphonème”, si Troubetzkoy n'eût compris par là tout autre chose, à savoir ce que Van Wijk définit comme „une espèce de synthèse psychique des unités alternantes” (*Phonologie*, p. 127). A notre avis, le mot phonologique est une unité ou cellule psychophonétique, comme le phonème lui-même, mais d'un ordre plus élevé.

En détachant et en dépouillant le mot phonologique du contexte on doit s'arrêter à un moment donné, parce que sans cela on arrive de nouveau au phonème. C'est à dire, on doit s'arrêter où, en continuant l'analyse, la fonction sémantique du système finirait. Ainsi un rapport est établi entre la forme et le contenu du mot phonologique. Pour le moment je voudrais en donner la définition suivante: „Le mot phonologique est un groupe de phonèmes qui, à l'état isolé, possède une signification intelligible et qui ne peut pas être analysé en groupes plus petits, dont chacun séparément satisfait à cette condition”.

Par exemple: dans le mot *stoelen* „chaises”, la partie *stoel* „chaise” a bien une signification indépendante, l'élément *-en*, au contraire, n'en a pas, de sorte que *stoelen*, aussi bien que *stoel*, peut être considéré comme mot phonologique. Il va sans dire que par cet exposé bref la recherche des qualités et de la valeur du mot phonologique est

loin d'être épuisée; la situation d'ailleurs varie pour chaque langue. Il y a toujours des cas plus difficiles à définir, tels que, en néerlandais, des mots comme *oorlog* „guerre” et *arbeid* „travail”, qui peuvent être analysés en éléments ayant une signification indépendante, mais qui n'a rien à faire avec le mot analysé. Ce cas se rencontre régulièrement p. ex. en français: *château*. Je crois que ma définition du mot phonologique s'approche d'avantage à ce que A. W. de Groot appelle, dans un article dans *Neophilologus*, (19me Année, 3, p. 2) „le mot sémantique”.

Quand on entreprend de définir la structure du mot phonologique, on arrive, comme j'ai dit précédemment, pour chaque langue à une autre image. On a déjà souvent donné une description phonologique de la structure d'une langue, comme par exemple Bally l'a fait pour le français dans son livre *Linguistique Générale* (cité par Van Wijk, *Phonologie*, p. 112 svv). Mais il me semble que dans l'intérêt de la clarté il est préférable de partir des plus petites unités morphologiques qui déterminent par leur rigides lois structurelles toute la construction morphologique de la langue. Il existe des langues où la situation est très simple, comme en chinois, où chaque mot ou morphème coïncide avec le groupe minimal de phonèmes dans cette langue. Dans les langues à préfixes et suffixes on a affaire à des mots phonétiques plus ou moins composés dans lesquels cependant la norme est toujours fournie par la loi structurelle qui domine le groupe minimal de phonèmes, c'est à dire le mot phonologique. Dans le néerlandais, le mot phonologique consiste à peu près toujours en une syllabe à voyelle pleine et par conséquent accentuée et qui est accompagnée de plusieurs syllabes, d'une syllabe ou d'aucune. La meilleur manière d'étudier les lois de composition, c'est de partir de la structure de la plus petite unité. En outre, il semble possible d'obtenir par cette voie une définition plus satisfaisante, aussi au point de vue psychique, de la notion „syllabe”, qui évidemment doit être défini de façon différente pour les différentes langues.

On peut aussi présenter la manipulation qui mène au dépouillement du mot phonologique comme un accordéon se fermant le plus possible. Cette manipulation, pour la mise par écrit, est la tâche du philologue, mais en réalité toute la communauté linguistique prend part à ce travail d'individualisation structurelle. Or le travail du grammairien n'est pas essentiellement différent de celui du sujet parlant, qui, lui aussi, se montre toujours „homo grammaticus”.

Pour le moment, je ne puis insister d'avantage sur cette question. Mon but principal était de montrer de quelle façon caractéristique l'écriture sémitique a pu contribuer à la compréhension du procès de l'élimination des mots du contexte.

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1. De taal is een systeem van tekens, zeggen wij nog altijd met de Saussure, en een omvangrijke literatuur heeft sindsdien deze gedachte verder uitgewerkt. Daarbij zijn zowel het tekenbegrip als het systeembegrip nader onderzocht geworden. Bij de nadere onderzoekingen van het systeem kwam men natuurlijk op het gebied van de oude schoolgrammatica en kwam men ertoe de traditionele daarin overgeleverde begrippen en categorieën te gebruiken om een denkbeeld van het stelsel te geven, dat men voor ogen had. Soms was het onderzoek van het systeem van een bepaalde taal en soms dat van een groep of van alle talen aan de orde, vooral wanneer de onderzoeker zich ten doel stelde een soort van „grammaire générale" te ontwerpen. Ook zijn er belangrijke onderzoekingen over de wijze, waarop de tekens in het systeem functioneren — ik denk hier aan Bühler en Reichling — en hieruit zijn eveneens belangrijke gevolgtrekkingen te maken voor de functionering van het systeem zelf.

Het komt mij voor, dat het zijn nut kan hebben de *aard* van het

*) Lezing, gehouden voor de Linguistenkring 17-10-'43 en voor de Phonologische Werkgemeenschap.

taalsysteem zelf nauwkeuriger te bezien. Kenmerk van een systeem kan zijn, dat zijn onderdelen, de elementen, op zulk een wijze zijn samengevoegd, dat zij elk naar hun aard en in onderling verband medewerken tot de functie, die het systeem als geheel heeft te vervullen. Dit is het geval bij een machine of bij een bestuursstelsel; wanneer de onderdelen hier alle op hun plaats zijn en goed functioneren, kan de zaak gaan „draaien”, zoals men dat noemt. Bij het taalsysteem echter, zoals dat in de gebruiksgewoonte van een individu aanwezig is, ligt de zaak anders, omdat de elementen, die ik zo nu en dan gemakshalve met „woorden” zal aanduiden, wel aanwezig zijn, maar niet zodanig geordend, dat de zaak maar behoeft te gaan „draaien” om een naar de eis functionerende taal tevoorschijn te brengen. Het is ermede als een blokkendoos of een verzameling van constructie-onderdelen, die door de bijzondere aard der elementen in staat stelt een goed draaiend systeem samen te stellen, terwijl de primaire verzameling van deze elementen hoogstens een potentieel systeem genoemd zou kunnen worden. Tot ditzelfde type van potentieel systeem zou men kunnen rekenen het rechtstelsel van een bepaalde gemeenschap of ook wel het periodiek systeem der elementen. Met behulp van het potentiële taalsysteem kan men grotere of kleinere systemen, in casu de taaluitingen opbouwen, evenals men met constructie-onderdelen van bijvoorbeeld een Meccano-doos verschillende constructies kan uitvoeren.

De taaluitingen nu behoren tot de spraak, de „parole”, en in deze gedachtengang zijn dus de zinnen en de uit zinnen samengestelde grotere eenheden evenzovele systeempjes en systemen, beantwoordend aan de hierboven gegeven definitie van de eerste soort van systemen. Ik meen, dat het in de tot nu toe geponeerde theorieën niet gebruikelijk is zinnen als systemen te beschouwen, maar men zal toch moeten toegeven, dat alleen *zij* de werkelijk als taal functionerende eenheden zijn en niet de grammaires en dictionaires, waarin de potentiële taal-elementen verzameld zijn. Alleen zijn deze kleine systemen niet autonoom, omdat de elementen tot zekere hoogte vaste eigenaardigheden en mogelijkheden in zich hebben, die een willekeurig gebruik in de samenstelling van een concrete taaluiting onmogelijk maken.

2. Bij het onderzoek naar de samenhang van alle taalelementen en van hun bijzondere semantische en functionele eigenaardigheden kan men bij gevolg alleen uitgaan van de verschillende parole-systemen en nagaan hoe die elementen zich daarin gedragen, welke functie zij daarin vervullen om dan daaruit conclusies te trekken omtrent hun

algemene toepasselijkheid, hun potentiële waarde. En niet alleen dat, want de vergelijking van de parole-systemen geeft ook het middel aan de hand om de elementen zelve uit elkander te houden, om hun individualiteit vast te stellen. Eerst daarna kan men ze gaan rangschikken naar de gezichtspunten, die men wil toepassen, dat wil dus zeggen of naar hun syntactische of naar hun semantische eigenschappen, of wel naar de paradigmatische vormcategorieën, waartoe zij schijnen te behoren. Op deze wijze kan men geraken tot een in vele talen, maar niet in alle, mogelijke duidelijke verdeling der taalelementen in woordklassen of rededelen. Dat dit niet in alle talen evengoed mogelijk is ligt aan het materiaal, waaruit de elementen zijn opgebouwd, d.w.z. aan de phonologische opbouw van de woorden. Ik heb hierbij natuurlijk op het oog talen zoals het Chinees, welker elementen een vergaand gebrek aan paradigmatische vormvariatie vertonen, zodat het gezichtspunt van de verdeling in vormcategorieën niet vruchtbaar kan worden toegepast.

Maar voor de kennis van het potentiële taalsysteem is het in ieder geval nodig zoveel mogelijk criteria voor de onderverdeling der elementen toe te passen. Wanneer men, zoals Brøndal gedaan heeft, alleen een semantisch-logische categorieënopstelling beproeft, kan men natuurlijk wel een belangrijk resultaat verkrijgen, maar dit resultaat kan nooit voldoende zijn tot kenschetsing der taalelementen. Hun potentiële inschakeling in de verschillende parole-systemen mag, evenmin als hun vorm, veronachtzaamd worden. Het is alsof men bijvoorbeeld de blokken van een bouwdoos uitsluitend ging rangschikken naar hun zwaarte en hun kleur, zonder acht te slaan op hun vorm en op de bijzondere diensten, die zij in het uit te voeren bouwwerk kunnen bewijzen.

Uitgangspunt van het onderzoek moeten dus zijn de in iedere taal mogelijke parole-systemen. Zoals gezegd hebben wij daar te doen met de concrete vormen, die de *flatus vocis* daarin aanneemt en met de samenstelling dezer vormen of wel met hun syntaxis. Een onontbeerlijke wegwijzer daarbij is natuurlijk de betekenis, die aan een bepaald parole-systeem gehecht wordt. Eerst op grond van de betekenis kan men twee parole-systemen onderscheiden en zo de aanwezige woord-elementen isoleren, evenals men in de phonologie de „opposition” der phonemen op het spoor kan komen door vergelijking der betekenissen.

Hiermede meen ik aannemelijk te hebben gemaakt, dat het onderzoek naar de samenstelling, naar de syntactische relaties in de parole-systemen noodzakelijk voorop moet staan. Eerst hierdoor wordt

de weg geopend tot een vergelijkende vormleer en een vergelijkende betekenisleer. In werkelijkheid is het ook altijd zo gebeurd en daaraan danken wij het grammatisch inzicht, dat wij in zeer vele talen hebben. Maar veel traditionele grammatische begrippen laten ons tot nu toe onbevredigd, wat vooral wel het gevolg is van het toepassen van voor bepaalde talen, vooral het Grieks en het Latijn, verkregen resultaten op andere talen, zonder dat voor die andere talen dezelfde weg van onderzoek gevolgd is.

3. Dat men de uitkomsten voor de ene taal zonder bezwaar op een andere taal durfde toepassen had natuurlijk zijn reden. Dat de *vormen* der elementen in de verschillende talen verschilden lag voor de hand, maar anderzijds ging men uit van de gedachte, dat de structuur der parole-systemen in het algemeen dezelfde moest zijn, daar men immers in staat was iedere willekeurige taaluiting in een andere taal weer te geven.

Laten wij hierbij even blijven stilstaan. Zou het waar zijn, dat de syntactische systemen van verschillende talen aan elkander gelijk zijn, zodat men in staat zou zijn een universeel syntactisch systeem op te bouwen, waarmede bij het onderzoek van de structuur van alle talen geopereerd kan worden? Ik geloof inderdaad, dat deze vraag bevestigend beantwoord moet worden, doch om dat aannemelijk te maken is nadere precisering vereist. Ik spreek over de parole-systemen, maar in iedere taal zijn een groot aantal parole-systemen, d.w.z. syntactische systemen mogelijk, evenals men met constructie-onderdelen een grote verscheidenheid van structuren kan uitvoeren. Nu zijn er in iedere taal evenzo een groot aantal types van syntactische systemen mogelijk; eenvoudiger gezegd: er zijn een groot aantal types van zinnen: vraagzinnen, beschrijvende zinnen, bevelende zinnen, nominale zinnen, verbale zinnen, enz. De ervaring leert, dat die zinnen in een eindig aantal types kunnen worden ondergebracht. Voor zover ik weet geldt dit voor alle bekende talen. Alleen ziet men bij vertalingen, dat een in een bepaald type van zin uitgesproken gedachte in een andere taal niet altijd in datzelfde syntactische structuurtype behoeft te worden weergegeven. De Nederlandse zin „hij loopt snel” kan in het Javaans worden weergegeven met een constructie, die eigenlijk betekent „zijn lopen is snel”. De bekende zin „Vader komt” (met den nadruk op „Vader”) moet men in het Frans vertalen met „C'est le père qui vient”. In talen, die eigenlijk geen bijzinnen en onderschikkende voegwoorden kennen, zoals het Turks, moeten de bijzinnen worden weergegeven door nominale vormen van het werkwoord: „ik weet, dat hij gekomen

is" wordt „ik weet zijn gekomen zijn". Toch kunnen wij altijd de afwijkende vreemdtalige constructie in onze eigen taal aanvoelen en, waar het nodig is, zo letterlijk mogelijk weergeven. Zelfs als wij bij het begrijpelijk maken van de uitdrukkingswijze van bijv. een Afrikaanse taal een substantief door een werkwoord weergeven: „er is een leeuw" = „daar leeuwt het", gebruiken wij middelen, die ook in onze eigen taal aanwezig zijn.

De overeenkomst van de syntactische systemen in de verschillende talen onderling is dus een uit de ervaring bewijsbaar feit. Die overeenkomst kan weliswaar verdoezeld worden, doordat bepaalde structuurtypes in een taal weinig of niet voorkomen of schijnbaar niet voorkomen omdat de beschikbare taalelementen niet erop berekend zijn het verschil duidelijk te markeren. Dit is het geval, wanneer men in onze taal zegt: „het glas breekt", wanneer daarvoor bijv. in het Frans een reflexief werkwoord moet worden gebruikt, terwijl „breekt" in een andere betekenis daar met een actieve zinsconstructie moet worden weergegeven. Dat bepaalde syntactische constructies in de ene taal een veel grotere rol spelen dan in de andere behoeft dus niet daaraan te liggen, dat de ene taal er geheel andere syntactische systemen op na houdt dan de andere. Ik wil in het volgende nog langs andere weg trachten te bewijzen, dat de syntactische systemen inderdaad in alle talen in beginsel dezelfde moeten zijn. Voor ik daartoe overga wil ik het vermoeden uitspreken, dat — indien mijn these juist is — alle verschillen in de uitdrukkingsmogelijkheden der talen op rekening komen van de eigenaardige natuur van de concrete klanken, waaruit een bepaalde taal is opgebouwd. Ik bedoel hiermede de structuurwetten, die de fonologische opbouw der woorden beheersen. Het is als het verschil tussen architectonische structuren al naarmate men bouwt met hout, met steen of met leem; het bouwwerk, dat men bedoelt te bouwen zal steeds dezelfde algemene constructiegedachten vertonen, maar het zal er toch geheel verschillend uitzien al naarmate men de ene of de andere grondstof gebruikt. Evenzo ziet een taalbouwsel er heel anders uit, wanneer het is opgetrokken met de keiachtige monosyllaben van het Chinees dan wanneer de kettingachtige woordgehelen der agglutinerende talen de overwegende massa van het bouw materiaal uitmaken. In de bestudering van de invloed van de fonetische gesteldheid der taal-elementen op de verwerkelijking van de syntactische systemen ligt m.i. een schone taak voor de fonologie.

Dit neemt niet weg, dat de syntactische systemen, waarin de taal-elementen gegroepeerd kunnen worden, vaste omramingen zijn, die

aan het bonte en veranderlijke taalmateriaal vastheid en klaarheid geven. Zij vormen het gedetermineerde element in het algemene potentiële taalsysteem. De taalelementen zelf zijn daartegenover veranderlijk, zowel wat de bouw van het fonologisch systeem betreft als met betrekking tot de interpretatie van de uit de fonemen opgebouwde woorelementen. Zolang men een bepaalde periode van een bepaalde taal beschouwt, kan men van die veranderlijkheid abstraheren en rustig de in die taal voorkomende fonemen en woorden gaan catalogiseren in categorieën. Deze dorre deterministische grammatische en lexicologische arbeid heeft zijn nut voor de kennis van het systeem. Maar we moeten nooit vergeten, dat de spreker of schrijver bij de vorming van zijn zinnen, zijn parole-systemen, als vrij-handelend subject optreedt en nooit geheel zijn subjectiviteit verliest in de interpretatie zowel van wat hij zegt als van wat hij hoort. Dit is de bron van nooit geheel ontbrekende meerzinnigheid van de taalelementen, waarop Reichling bij de uitwerking van het tekenbegrip heeft gewezen.

4. Waarom moet de syntactische opbouw voor alle talen gelijk zijn? Omdat zij afhankelijk is van de drie „dimensies”, die Bühler en op zijn voetspoor Gardiner in het taalgebeuren poneert, n.l. de „spreker” of „zender”, de „hoorder” of „ontvanger”, en de „zaken”, waarover gesproken wordt. Aan deze drie dimensies beantwoorden in de spraak drie sferen: de *subjectieve*, de *appellatieve* en de *objectieve*. Bühler en Gardiner hebben elk op hun wijze getracht bepaalde typen van *zin* in die verschillende sferen onder te brengen. Dit is inderdaad mogelijk gebleken, maar dan toch altijd zo, dat de beschouwde zin naar zijn semantische inhoud overwegend in een der genoemde sferen thuis behoorde. Zou het echter niet mogelijk zijn bepaalde taal-elementen of systeem-onderdelen toe te wijzen aan een van de drie dimensies? Dat zou dan betekenen, dat deze dimensies in iedere taaluiting gewoonlijk alle drie vertegenwoordigd zijn, maar dat zij bij de syntactische analyse van elkander kunnen worden onderscheiden.

5. De *subjectieve* dimensie ontbreekt nooit geheel, maar komt naar verhouding zelden alleen voor. Dat gebeurt in de uitingen, waarin de spreker de betekenis der door hem geuite spraakklanken alleen op zichzelf betreft; in de allereenvoudigste vorm zijn die uitingen interjecties, maar in meer gearticuleerde spraak kunnen het zijn uitroepen van verbazing: „prachtig!”, van nood: „help!”, van opluchting: „gelukkig!” en dergelijke meer. Ook kunnen hiertoe behoren zinnen met z.g. onpersoonlijke werkwoorden: „het regent”, enz. Verder kunnen natuurlijk gehele zinnen zoals „Wel heb ik van mijn leven!” gerekend

worden tot de subjectieve sfeer. Dit zijn echter, behalve de interjecties, voorbeelden, welker woorden ook zeer goed als niet uitsluitend subjectief kunnen worden opgevat. Zij zijn in de bedoelde uitingen alleen maar in de subjectieve sfeer getrokken. Iets anders is het echter na te gaan of die subjectieve dimensie ook niet aanwezig is in zinnen, die niet geheel tot de subjectieve sfeer behoren. Neemt men een gewone zin als „hij gaat naar huis”, dan is het centrale element daarin, zonder hetwelk de andere elementen zinloos zijn, het begrip van het werkwoord „gaan”. Het is het begrip „gaan”, dat de spreker, wanneer er verder niets bij komt, alleen als een subjectief door hem ervaren gewaarwording kan interpreteren, misschien het best weer te geven door een uitdrukking als „er wordt gegaan”. Alle andere in den zin voorkomende elementen zijn „bepalingen” van dat subjectieve begrip, die het in relatie brengen met een niet volkomen subjectieve wereld, waartoe de hoorder behoort of die nog verder naar de objectiviteit is geabstraheerd. Als wij nu in de meeste bekende talen in eenvoudige zinnen dat subjectieve element willen aanwijzen, dan komen wij empirisch terecht bij die taalelementen, die wij in onze eigen taal *werkwoorden* hebben leren noemen. Hieruit concludeer ik, dat de werkwoorden *bij voorkeur* in een zin de subjectieve dimensie vertegenwoordigen. Dit wil niet zeggen, dat ik het subjectieve element eenvoudig vereenzelvig met het werkwoord en dat ik zo maar een syntactische definitie wil geven van dat rededeel. Maar ik ga uit van een eenmaal bestaande, misschien gebrekkige terminologie. Wanneer men voor bepaalde z.g. primitieve talen meent het begrip „leeuw” te moeten interpreteren als „daar leeuwt het”, dan doen wij ook niets anders dan dat wij de subjectieve gewaarwording, die wij aan de sprekers van die taal toeschrijven, eveneens door een werkwoordsvorm verduidelijken. Ik zeg dus benaderend, dat de subjectieve dimensie in een parole-systeem aanwezig is als een werkwoord.

6. Naast het verbale, subjectieve element bevat de zin dan nog andere elementen, die zich als „bepalingen” om dat eerste, centrale element scharen. „Bepaling” wil in dit verband zoveel zeggen als het in relatie brengen van het door het werkwoord uitgedrukte subjectieve begrip met andere begrippen, die geprojecteerd zijn in de sfeer van de hoorder, d.w.z. waarvan de spreker aanneemt, dat zij in de voorstelling van de hoorder aanwezig zijn. Aanknopen aan de indeling van Bühler reken ik deze „bepalende” elementen tot de *appellatieve* dimensie. Zij zijn principieel van *pronominaal* of *deiktisch* karakter om alweer een term van de schoolgrammatica te gebruiken. In de werkwoorde-

lijke vervoeging zijn het de hetzij geaffigeerde, hetzij losstaande elementen, die de personen aanduiden, zowel de personen, die als subject van het verbale begrip worden beschouwd, als de pronominale objects-aanduidingen, die in veel talen voorkomen. Maar ook andere adverbiale bepalingen van plaats, tijd en wijze, die een pronominaal karakter hebben: „hier, nu, zo”, enz. Men vindt dit alles verenigd in zinnetjes als „hij ziet haar hier”. Naar onze conventionele grammatische opvattingen zijn wij geneigd hier terstond te spreken van subject en object, maar dit is een analyse, die zulk een zin te veel betreft in de hierna te bespreken zakelijke sfeer. De interpretatie van een zin in de appellatieve sfeer wordt duidelijker gemaakt door constructies als in de Maleis-Polynesische talen voorkomen bij de transitieve werkwoorden met hun verschillende activiteitsgraden. Het werkwoord zelf is noch actief noch passief. In het Maleise *dilihatnja* „hij ziet hem (of haar)” is *lihat* het subjectief-verbale begrip „zien” (of „gezien worden”) en de pronominale elementen *di* en *nja* wijzen op personen of dingen, die daar iets mede te maken hebben. Het werkwoord blijft hier het centrale begrip vertegenwoordigen.

Nu kunnen de personen of dingen, of andere begrippen, die met dat centrale werkwoordbegrip iets te maken hebben, verder ook nog door andere niet-pronominale woorden worden aangeduid. Men krijgt dan constructies als: „de vrouw de wolf zij ziet hem”, zoals dit in Eskimo-talen en in Indiaanse talen voorkomt. Ook in het Maleis kan het subject of het object er zonder nadere aanduiding bijgevoegd worden, maar gewoonlijk zijn subject of object vergezeld van voorzetsels, die de verhouding nader preciseren. Zolang echter het verbale begrip het centrale element blijft, kunnen we blijven spreken van „verbale zinnen”. Deze verbale zinnen liggen niet geheel in de subjectieve sfeer, omdat het verbum bepaald is door tot de appellatieve dimensie behorende elementen. Ook de verder liggende bepalingen van tijd, plaats en wijze kunnen door niet-pronominale elementen worden uitgedrukt: in plaats van „hier” kan men zeggen „in huis”, in plaats van „zo” kan men een gerundivum gebruiken: „hij loopt zingende” of „te zingen”. Al deze nominale en verbale vormen worden dus in de bepalende, appellatieve sfeer van de deiktische taalelementen getrokken, hoewel zij daar naar hun oorsprong niet thuis horen. Zij treden op als nominale casusvormen, als adverbia of als gerundiva of infinitieven.

Verbale zinnen, waar het verbum centraal is, zijn in veel talen goed te onderscheiden; onder de Semitische talen maakt vooral het

Arabisch een scherp onderscheid. Het aan verbale zinsconstructies eigen neutrale karakter van werkwoorden ten opzichte van activiteit of passiviteit is daar veelal onder andere invloeden opgegeven, maar het syntactische type staat zeer vast.

Nu zijn er ook talen, die zoals het Chinees nauwelijks pronominalemente elementen kennen. Hier moet door de betekenis worden vastgesteld of het verbum in de zin centraal is. Ook hier kan men, althans in klassiek Chinees, zinnen aantreffen, waar duidelijk de „bepalende” woorden zonder verdere aanduiding om het werkwoordelijk begrip geschaard zijn: *wo šou wo tan* „ik hand houden mes” = „ik houd een mes in de hand”. De woordorde helpt hier overigens een handje mee.

7. De *verbale* zinsconstructie staat tegenover de *nominale* constructie. In de *nominale* constructie treden taalelementen op, welke begrippen aanduiden, die door den spreker geponeerd worden als behorende tot de — door hem als zodanig beschouwde — reële wereld. Het zijn niet meer louter subjectieve indrukken van den spreker en ook niet tot nader bepaling of verduidelijking bijgevoegde aanwijzingen, maar objectief gestelde zakelijke begrippen. Wanneer de zakelijke dimensie in de zin vertegenwoordigd is, houdt het verbum op het centrale element te zijn en treedt daarvoor het *nomen* in de plaats. Wij krijgen dan de uit de schoolgrammatica bekende syntactische constructie: subject-praedicat, waarvoor ik liever onderwerp en gezegde zal zeggen, omdat het begrip subject in het voorgaande voor iets geheel anders gebruikt is.

Het gezegde kan dan weer bestaan uit een verbale constructie, die echter in haar geheel, door de verbinding met het *nominale* onderwerp, in de zakelijke sfeer getrokken is. In talen als het Nederlands komt het verschil tussen de verbale zin en de *nominale* zin niet zo duidelijk naar voren, omdat er geen morfologische middelen worden aangewend om dat verschil aan te geven. In andere talen is dat wel het geval. In het Japans zijn het de suffixen *ga* en *wa*, die het onderscheid markeren. De met *ga* gesuffigeerde nomina behoren bij een verbale zin ter nadere „bepaling” van het werkwoordelijk begrip: *yama ga takai* „de berg is hoog”; de met *wa* gesuffigeerde vorm verzakelijkt het onderwerp: *yama wa takai* „wat den berg betreft, hij is hoog”. Eigenlijk zouden er dus twee verschillende termen moeten worden gevonden voor het onderwerp: het *nominale onderwerp* en het *adverbiale onderwerp*. In de Arabische grammatica worden deze twee in de terminologie ook streng gescheiden (فاعل en مبتدأ). In het Nederlands wordt het verschil dikwijls slechts door het accent aangegeven, zoals in de bekende

zinnen: „Vader kómt” en „Váder komt”, waarvoor in het Frans onderscheidend gezegd kan worden „le père vient” en „c’est le père qui vient”. Dit op den voorgrond stellen of centraal stellen van het nominale onderwerp wordt door Gardiner „praediceren” genoemd. Eerst wordt „Vader” gepraediceerd: „er is Vader” en dan wordt daarvan in het gezegde gezegd: „hij komt”. Het nominale onderwerp behoeft zich overigens niet uitsluitend als nomen voor te doen; het kan bijv. ook de vorm van een adverbium behouden in een zin als „mórgen komt Vader”, „c’est demain que viendra le père”. Men kan zulk een uitdrukking altijd nominaliseren door bijv. te zeggen: „het is de dag van morgen, waarop Vader komt”.

De verhouding van het nominale onderwerp tot het gezegde wordt in veel talen met de copula aangegeven. Jespersen, en anderen op zijn voetspoor, spreken dan van een nexus. In een nexus behoren de beide leden tot de zakelijke sfeer: „het huis is groot”. Alleen is het tweede lid van een afgeleide zakelijkheid; het is een verzakelijkt oorspronkelijk appellatief syntactisch element, dat nu het nominale onderwerp komt „bepalen”. Die zakelijke „bepaling” kan ook als adnominale bijvoegelijke bepaling optreden: „het grote huis” en wordt zo veelal gerealiseerd als adjectief. Wanneer het nominale onderwerp een verbale zin tot gezegde heeft: „de maan komt om acht uur op” is de verbale zin in zijn geheel verzakelijkt en kan altijd vervangen worden door een participium met aanhang; als men haar adnominaal gebruiken wil moet men er althans in het Nederlands een participiale constructie van maken: „de om acht uur opkomende maan”. In andere talen, zoals het Arabisch (كَدَّ يَلْعَبُ „een spelend kind”), is dat weer anders, daar hier de vervoegde werkwoordsvorm kan worden behouden.

8. De syntactische elementen, die naar de verschillende dimensies in een zin kunnen optreden, zijn op de volgende wijze te rangschikken:

	subjectief	appellatief
(verbale zinnen)	verb.	pron. adv.
(nominale zinnen)	nom.	pronomen

Wat onder de streep staat zijn de verzakelijkte taalelementen. Aan het verbum beantwoordt in de zakelijke sfeer het nomen. In het nomen wordt het verbale begrip geabstraheerd van de louter subjectieve opvatting; de verbale handeling verschijnt hier als een infinitief of verbaal-nomen. Aan „hij loopt” in de subjectieve sfeer beantwoordt „zijn lopen” in de zakelijke. Aan een primitievere subjectieve ervaring „het leeuwt” beantwoordt in de zakelijke sfeer „de leeuw”. Zo is er

ook een correlatie tussen de subjectieve en de objectieve dimensie. Aan het deiktische element „hier” beantwoordt in de zakelijke sfeer „deze”. Aan een adverbium beantwoordt een adjectief, aan een verbaal gerundium beantwoordt een participium. Aan „hij loopt snel” beantwoordt in de zakelijke sfeer „zijn lopen is snel”.

In deze gevallen komt de verzakelijking in het Nederlands en vele andere talen duidelijk uit door morfologische eigenaardigheden, die het woord in de zakelijke sfeer als nominaal doen kennen, zoals casusflexie en congruentie. Dit is echter niet altijd het geval, n.l. wanneer bijv. een voorzetselbepaling als gezegde van een nexus optreedt: „het boek is op de tafel”, of als adnominale bepaling: „het boek op de tafel”. Sommige talen, zoals het Turks, hebben morfologische middelen om de voorzetselbepaling ook in het laatste geval tot een nominaal complex te stempelen: *evimdeki kitap* „het boek in mijn huis”. Een bijzonder geval is de genitief-constructie. Ook deze is oorspronkelijk deiktisch; in veel talen, waar een genitief-casus bestaat, kan hij ook nog als bepaling van een werkwoord voorkomen. Maar de genitief komt nu eenmaal door de nexus-koppeling gemakkelijk in de zakelijke sfeer terecht: „dat boek is van Piet”, en ook als adnominale bepaling: „het boek van Piet” behoudt hij dikwijls dezelfde vorm, hoewel zeer veel talen in dit opzicht weer eigen wegen gaan.

9. De appellatieve dimensie is, zoals gezegd, de sfeer der deiktische elementen, waarin naar hun aard thuis zijn de pronominale adverbia *hier, daar, nu, zo*, enz. en, in de vorm van praec-, suf- of infixen de persoonsaanduidingen bij het werkwoord. In de correlate zakelijke sfeer beantwoorden daaraan adjectivische en substantivische pronomina: *deze, die* enz. Ook de persoonlijke voornaamwoorden hebben hier hun plaats, met als corresponderende appellatieve vormen de possessiva. Het is duidelijk, dat wij ons met deze appellatieve dimensie bevinden in wat Bühler het „Zeigfeld” noemt; tot Bühler’s „Symbolfeld” behoren dan de andere subjectieve en objectieve taalelementen. Eveneens zijn het de deiktische elementen, die in sommige talen meer, in andere minder, hun diensten verlenen tot het oproepen van de verschijnselen, die „Lokalvorstellung” genoemd worden. Immers met behulp van die elementen kunnen allerlei bepalingen van plaats, tijd en wijze aan de subjectieve en zakelijke elementen, aan de „Symbole”, worden toegevoegd.

Nu is uit de gegeven voorbeelden gebleken, dat ook de „Symbole” zelf gemakkelijk binnen de sfeer der deiktische elementen kunnen worden getrokken om nadere bepaling aan het centrale subjectieve element te geven. Zo kunnen voor deiktische bepalingen „gesubstitueerd”

worden en als zodanig fungeren: de adverbiale werkwoordsvormen, n.l. de gerundiva en tot zekere hoogte de infinitieven, de gewone adverbia, en de naamvalsvormen van substantiva. Het zijn alles wat men in de schoolgrammatica *adverbiale bepalingen* noemt. Een substantivum in een casus bevindt zich dus als „bepaling” van een centraal subjectief (verbaal) begrip niet in de zakelijke sfeer. Maar het is uit de zakelijke sfeer — waarin het slechts als onderwerp of gezegde van een nexus op kan treden — in de appellatieve of deiktische sfeer gelicht. In talen, die casus-uitgangen kennen, is de uitgang het deiktische element, waarin het bepalingsskarakter tot uiting komt. Anders is het, zoals in het Nederlands, de praepositie, die mede tot de deiktische elementen behoort.

De mogelijkheid om gesubstitueerd te worden in een andere dimensie dan waarin een woord oorspronkelijk thuishoort is een gevolg van de aan de taaltekens eigen aanpasbaarheid, van hun variabiliteit ¹⁾. In de talen, waar morphologische middelen (uitgangen, enz.) de woorden kenmerken als behorende tot bepaalde klassen, gaat met het overgaan in een andere sfeer vaak een noodzakelijke vormverandering gepaard (maar niet altijd, zoals in de verhouding tussen ons adjectief en adverbium); in de vorm-arme talen evenwel, zoals Chinees of Maleis, gaat de overgang dikwijls ongemerkt en kunnen bijv. werkwoordstammen tevens nominale stammen zijn of, zuiver syntactisch uitgedrukt, de syntactische dimensies kunnen alleen door de betekenis van den zin worden onderscheiden.

10. Op deze wijze kan men trachten de hoofdelementen van het syntactische systeem en hun samenhang uit de drie bij elke taaluiting aanwezige dimensies: de subjectieve, de appellatieve en de objectieve, te verklaren. Deze verklaring is psychologisch en de categorieën van het ontworpen syntactische systeem zijn dan ook psychologische categorieën. Maar daarbij blijft het niet. Want, eenmaal als vorm in de taal vastgelegd, houden de zo opgebouwde parole-systemen op zich te gedragen naar de psychologische orde; van psychologische zijn het linguïstische systemen geworden, welke zich geheel anders gedragen. Dit is het gevolg van het linguïstische beginsel van „interpretatie”. Is namelijk eenmaal een bepaald parole-systeem geijkt voor het weergeven van een bepaalde bedoeling, dan kan door interpretatie daaraan een psychologische waarde worden toegekend, die niet in de oorspronke-

¹⁾ Het systeem wordt nu psychologisch-linguïstisch. Nominativus, accusativus en genitivus zijn de enige casus, die nominaal kunnen worden.

lijke structuur zit. Als voorbeeld noem ik de gevallen, waarin verbale vormen door oorspronkelijke participia worden weergegeven, bijv. Engels: „my father is writing”. Dan hebben wij naar den vorm een nominale zin, maar door interpretatie kan het toch in alle opzichten een verbale zin worden. Dergelijke gevallen komen begrijpelijkerwijze zeer veel voor. Men kan er ook mede vergelijken de onzekerheid of een zin als „Vader komt” een verbale of nominale zin is. In onze schoolgrammatica wordt die zin in het algemeen als een nominale beschouwd wat zij oorspronkelijk ook wel is, maar als de klemtoon niet op „Vader” rust, is het toch een verbale zin.

Naast de subsidieerbaarheid der syntactische elementen in een andere dan de sfeer, waartoe zij naar hun psychologisch wezen behoren, hebben wij dus ook de subsidieerbaarheid van syntactische systemen zelf, die dus delen in de semantische variabiliteit van het teken. Deze eigenschap moet ons ervoor behoeden op grond van het overwegen van de een of andere syntactische zinsconstructie een taal meer of minder primitief te noemen. De constructies hebben zich nu eenmaal in de parole-systemen vastgezet en de middelen, die de taal verder aan de hand doet om de bedoeling van den spreker te verduidelijken, zijn overwegend van linguistische en niet van psychologische aard.

Alle talen, wanneer zij tot zinsvorming overgaan, kunnen principieel twee syntactische constructies verwerklijken: de verbale of subjectief opgevatte zin, bestaande uit subjectieve en appellatieve of deiktische elementen, en de nominale of zakelijke zin, die uit twee door nexus verbonden zakelijke elementen bestaat. In het eerste geval is het verbum het centrale element van de zin en in het tweede geval het nomen, of — misschien beter nog — de nexusverhouding zelf, in het Nederlands door vormen van het werkwoord „zijn” uitgedrukt, dus als men wil een soort geatrophieerd werkwoord. In alle talen bewegen sprekers en hoorders zich nu eens in de subjectieve en dan weer in de objectieve sfeer. Talen, waarvan de zinnen zich uitsluitend in de verbaal-subjectieve sfeer bevinden, zijn eigenlijk nog geen talen. Zij zouden de nominale elementen missen, want, zoals wij gezien hebben, komen deze elementen wel in groten getale voor in de vorm van „bepalingen” in het verbale zinsverband, maar daarvoor moeten zij eerst in de zakelijke sfeer vernominaliseerd geweest zijn. Daarom, ik herhaal het, zou het verkeerd zijn de twee syntactisch mogelijke zinstypen te beschouwen als historische ontwikkelingsphase's in de taal, op zulk een wijze, dat de verbale zinsconstructie primitiever zou zijn dan de nominale.

Ik kan hier nu niet ingaan op de meer gecompliceerde syntactische constructies, die optreden wanneer er bijzinnen in het spel zijn. De verhoudingen worden dan ingewikkelder, maar juist de constructies van bijzinnen kunnen soms de eigenaardigheden van het syntactisch systeem treffend accentueren.

11. Het syntactische systeem is zomede het keurslijf, waarin de taalklanken gedwongen worden om zinvol te kunnen worden gebruikt. Aan de elementen van het syntactische systeem nu moeten taalklank-elementen beantwoorden, die zich van elkander onderscheiden door de plaats, die zij in het systeem innemen. Door de dwang van het systeem worden de psychische eenheden gerealiseerd, die wij „woorden” noemen.

Hoe die woorden eruit zullen zien hangt af van de phonologische structuurmogelijkheden, die aanwezig zijn in het phonetische klankmateriaal. Als de vergelijking met een bouwwerk weer even gebezigd mag worden, zouden wij kunnen zeggen, dat een overdekking met hout, bijvoorbeeld, er heel anders uit zal zien dan een overdekking met bakstenen of met steenblokken of met grotere stukken steen. Anders gezegd, het is de articulatiebasis van een taal, die beslissend is voor de vorm, waarin de woorden zich zullen kunnen vertonen. De articulatiebasis is een biologisch feit, dat de linguïstiek heeft te aanvaarden. Maar wel kan de linguïstiek trachten verschillende types van articulatiebasis te onderscheiden.

Ik kan hier maar zeer in het algemeen aangeven volgens welke gezichtspunten men hierbij te werk kan gaan. Belangrijk lijkt het mij vast te stellen of de taalstroom neiging heeft tot cel-achtige groepering om centrale klanken of wel eerder monotoon voortkabbelt zonder veel houvast te geven voor een analyse. Tot de eerste groep van typen behoort in de eerste plaats het Chinees, dat zo sterk monosyllabische elementen isoleert; verder de Semietische talen, waar twee of drie consonanten telkens groepen vormen om welke zich andere secundaire klanken groeperen; voorts een aantal z.g. agglutinerende talen, die een zwakkere neiging dan het Chinees hebben tot isolering van monosyllabische elementen, en waarin deze zich kettingachtig rijen achter een centraal bisyllabisme; ten slotte de vele talen, die van verschillende soorten van accentrythme gebruik maken om hun phonemen in afzonderlijke groepen bijeen te brengen. Aan de andere kant heeft men talen, zoals Eskimo- of Indiaanse talen, waarin syllabe op syllabe volgt, zonder dat enig beginsel van grotere groepering aanwezig is. Vaak gaat dit laatste gepaard met armoede aan phonemen.

Het vaststellen van deze types is een dankbare taak voor de toekomstige phonologie. Voor iedere taal zal moeten worden vastgesteld wat de Groot noemt de "onafhankelijke woordvorm", wat men m.i. ook het morphoneem kan noemen.

12. Van de vele aspecten, die dit onderzoek heeft, is er een van zeer groot belang, de vraag namelijk in hoeverre een bepaald klanksysteem zich leent voor het onderscheid maken tussen woorden, die tot de subjectief-verbale en objectief-nominale sfeer, d.w.z. het Symbolfeld enerzijds, en die welke tot de appellatieve sfeer, d.w.z. het Zeigfeld anderzijds behoren. Het is bekend, dat in allerlei talen de deiktische of pronominale elementen — zowel de zelfstandige als de geaffigeerde — er phonematisch anders uitzien dan de symboliserende. Zo kunnen in de Semietische talen deze elementen niet ondergebracht worden in het schema van de twee- of drieconsonantigheid; in de Maleis-Polynesische talen hebben zij geen deel aan het bisyllabisme; in de agglutinerende talen hebben zij een andere phonematische structuur dan de gewone verbale en nominale wortelsyllabes; in de Indo-Germaanse talen vertonen zij afwijkende paradigmatische verschijnselen. Schier overal zijn zij opgebouwd uit een beperkter aantal phonemen dan de niet-deiktische woorden. In het Chinees daarentegen zijn de deiktische elementen phonematisch in niets onderscheiden van de symboliserende karakters. Evenmin schijnt dit het geval voor het Japans en de Indianentalen, die ik op het oog heb. Men zal hieruit mogen afleiden, dat het syntactische systeem principieel de phonematische onderscheiding van deiktische en symbolische woorden in de hand werkt, maar dat de aard van het klankmateriaal, het klanksysteem, de articulatiebasis of hoe men het noemen wil, al of niet kan medewerken om een zodanig onderscheid te verwerklijken. In de voorbeelden, die ik noemde, ligt het verband tussen beide vrij duidelijk voor de hand. Nemen wij alleen maar de beide uitersten: het Chinees en de Algonkintalen, dan zien wij dat in het ene geval de zeer krachtige isolering en in het andere geval de ongedifferentieerde uniformiteit der elementen het onderscheidmaken verhindert. In de tussenliggende taaltypen daarentegen doet het zich meer of minder duidelijk gelden al naar de klankstructuur.

Een ander der punten, die door de bestudering van de klankstructuur verhelderd kunnen worden, is het al of niet voorkomen van composita (zie de tabel op blz. 29).

En zo zijn er nog vele andere eigenaardigheden, die uit onderzoek van de phonologische onderbouw, gecombineerd met de onveran-

Nominale composita in het Nederlands, opgebouwd uit twee semantemen (schematisch).

		A. Het eerste lid is een bepaling van het tweede (subst. of adj.). Het <i>eerste lid</i> kan omschreven worden door een bepalende bijzin (z.g. determinatieve composita; tatpuruṣa en karmadhāraya).	
1ste lid is:		2de lid is substantivum	2de lid is adjectivum
subst.	1	bierfles, boerenzoon, kleermaker, ziekbed (tatp). spraakkunst, lettergreep, manslag manspersoon, lekebroeder (karm).	manziek, talrijk, hartgrondig (tatp). godgegeven, kunstlievend vuurrood, pikzwart (karm.)
adj. of adv.	2	edelman, privaatschool, hogeschool. onderbroek, medeklinker, voorvader (terugkeer), (aanval), tegen-spoed, voorbeeld,	donkerblauw oudbakken oververmoeid
verbaalstam	3	stijgbeugel, drinkebroer, snijboon, duiksprong	trouwlustig, kraakzindelijk, duizeldiep
		B. Het eerste lid is een bepaling van het tweede (subst. of verbaalstam). Het <i>gebele compositum</i> kan omschreven worden door een bepalende bijzin. (z.g. possessieve composita; de eerste 2 groepen zijn bahuvrīhi).	
		substantiva	afgeleide adjectiva
subst. + subst.	1	kaaskop, snotneus	waaninnig
adj. of adv. + subst.	2	blauwbaard, domoor, vierkant	enghartig, medeplichtig (hoogmoedig), vierkant, reusachtig hedendaags, achterbaks vgl. ἐφήμερος
subst. + verbaalst.	3	schaarsliep, schildwacht, wijsgeer, landzaat (eerbied)	nieuwsgierig, wijsgerig eerbiedig
adj. of adv. + verbaalst.	4	onderzaat; veelvraat	hardhorig, langwerpig goedgeefs, waarschijnlijk
		C. Het tweede lid is een bepaling van het eerste (verbaalstam). Het <i>gebele compositum</i> kan worden omschreven door een bepalende bijzin.	
2de lid is:		substantiva	adjectiva
subst.	1	waaghals, stokebrand, dwingeland, vgl. φιλόθεος, Fürchtgott	waaghalzig
adv.	2	weetniet, slokop, praatgraag, deugniet	praatgraag

derlijke syntactische systeembouw, hun verklaring kunnen vinden.

13. Het spreekt vanzelf, dat nu ten slotte ook nog het probleem van de woordsoorten, de partes orationis, aan de orde komt. Ik meen door mijn betoog waarschijnlijk te hebben gemaakt, dat, om tot een linguistische afbakening van woordsoorten te komen, het syntactische systeem niet gemist kan worden. Bepaalde woordsoorten, zoals nomen, verbum en pronomen kunnen in veel talen zelfs geïdentificeerd worden met syntactische categorieën. Daar staat tegenover, dat het een nergens ontbrekende eigenaardigheid van de woorden is, dat zij op hun tijd in elk der syntactische categorieën kunnen optreden, en wel krachtens de aan hun tekennatuur verbonden eigenschap om combinatorisch te kunnen symboliseren. Dit geldt — terloops gezegd — eigenlijk alleen van de symboolwoorden, althans in veel beperkter mate van de deiktische woorden, maar ook het deiktische woord kan als symboolwoord behandeld worden.

Wanneer nu de woorden zonder vormveranderingen te ondergaan — d.w.z. zonder bijzondere verbindingen met deiktische elementen aan te gaan — in de verschillende syntactische functies kunnen voorkomen, zoals vooral in het Chinees, of wanneer — het andere uiterste — een woord als regel vele syntactische functies tegelijk omspant, zoals in het Algonkin, dan is de kans om op deze wijze tot een onderscheiding van woordsoorten te geraken al zeer gering. Op andere, logische, wijze, zoals Brøndal gedaan heeft, kan het natuurlijk wel. Zijn logisch systeem gaat voor een deel van dezelfde premissen uit als het syntactisch systeem en daardoor komt hij tot resultaten, die ook al weer voor een deel linguistisch bruikbaar zijn. Maar waar Brøndal bijvoorbeeld zo sterk het telwoord als een bijzondere woordsoort naar voren brengt, is het mij onmogelijk daarvoor een linguistische rechtvaardiging te vinden. Ik geef toe, dat men bij de telwoorden wel zou kunnen aarzelen of zij eigenlijk in de zakelijke dan wel in de deiktische sfeer thuishoren, maar dit blijve bewaard voor een afzonderlijk onderzoek.

De voorlopige conclusie ten opzichte van het probleem van de woordsoorten moet zijn, dat de mogelijkheid om überhaupt woordsoorten te onderscheiden wederom afhankelijk is van de gesteldheid van het klanksysteem, maar dat, ten gevolge van hun samenhang met het syntactische systeem, dat voor alle talen geldt, men, zo onderscheiding mogelijk is, steeds tot enige overal gelijke hoofdcategorieën zal komen, terwijl de onder-categorieën, al naar de verscheidenheid der talen, zullen verschillen.

Dit alles leert de *driedimensionale* opbouw van het taalsysteem. Zij vergunt ons de taalelementen in verschillende sferen te zien en daardoor een *perspectivische* blik op iedere taaluiting te verkrijgen.

SUMMARY

1. A language is a system of symbols (*système de signes*, De Saussure). One has to distinguish the elements of a language from the elements of speech utterances: the words of a language, and the sentences of speech. However, in the descriptions of linguistic systems there are, so far, no descriptions of systems of sentences.

2. In classifying words the only possible procedure is first to observe the behavior of words in sentences, i.e. to start with a classification of sentences. This is the procedure that has actually always been applied e.g. in the description of Greek and Latin.

3. The syntactic systems of all languages are the same. It is possible to construct a universal syntactic system that can be used in the investigation of all languages. The fact that the syntactic systems of different languages are essentially the same is revealed by common experience. One can understand from experience a syntactic construction in a foreign language that does not exist in one's own language, and, if necessary, one can translate it literally into one's own language. For instance, a construction in an African language that means *there is a lion* can be translated literally as *it lions there*. Some constructions are more frequent and more important in some languages than in others. This fact, however, is not due to differences between syntactic systems, but to phonetic differences between the languages concerned, i.e. between structural laws concerning the forms of separate words. The study of the bearing of the phonetic structure of words upon the actualization of syntactic systems is one of the most promising tasks of modern phonology.

4. The structure of the syntactic systems of all languages must be the same because it is conditioned by the same three 'dimensions': 1. the speaker, 2. the hearer, 3. the things meant. Sentences can be classified in a corresponding way, i.e. as 1. subjective, 2. appellative, 3. objective, in the sense that in a given sentence one of the three features is always more prominent than the two others. In the same way words can be classified.

5-8. Generally speaking one may say that in the sentence the subjective dimension is represented by verbs, the appellative by deictic words

i.e. pronouns (for which adverbs can be substituted), and the objective by nouns.

9. A word can always be transposed into a category to which it does not belong originally. In languages with many morphological elements (esp. endings) this transposing often requires change of morphological form, but not always; Dutch, e.g., has no special ending of the adverb comparable to English *-ly*. In languages with no or few morphological elements, such as Chinese and Malay, there are no formal changes of this kind.

10. In principle each language can actualize two syntactic constructions: the verbal and the nominal one.

11. The classification of elements of the syntactic system is paralleled by a similar classification of words. The features of the words of the different classes are conditioned by the basic articulation system (German: *Artikulationsbasis*) of the given language. The idea cannot be worked out in detail here. Some languages tend to the centralisation of series of sounds, e.g. the Chinese and the Semitic languages, agglutinating languages, and all languages with dominating word accent. In some languages appellative words (esp. pronouns) have a phonemic structure different from the structure of symbolic words, e.g. in that they usually have less phonemes than symbolic words (Semitic, Malayo-Polynesian and Indo-European languages). Also the presence or absence of compounds can be significative.

12. These and similar phenomena have a bearing upon the distinction of parts of speech (*partes orationes*). It has to be kept in mind that symbolic words can always be used as members of a different class, but deictic words cannot, or not to the same extent.

13. A classification of this kind is, however, impossible in languages without morphological change of words, such as Chinese. Here, of course, a logical classification can be applied. This has been done by Brøndal. Brøndal's view that the numeral is a separate part of speech does not seem to be supported by actual evidence.

As the system of parts of speech in a given language is based upon the syntactic system of that language, and the syntactic systems of all languages are essentially identical, the basic categories of parts of speech are the same in all languages. Whether in a given language a given part of speech actually exists or not, depends on the character of the sound system of that language.

The basic distinctions in any language system are the three dimensions mentioned above.

MINIMUM STANDARDS FOR A GRAMMAR *)

Modern linguistics have again raised many problems which formerly were considered as definitely solved. The more languages of an always different construction became known, the more the view came to prevail that the categories of graeco-latin grammatical theory (the preponderantly morphological parts of speech and the syntactical functions) either do not occur in many languages, or occur in completely different aspects. This has led people to doubt the right of existence of the familiar categories and thorough investigations have been made to determine the relative value of the latter. The traditional word-classes constituted the special object of the critical attacks and it was rightly stressed that the differentiation made by these classes is sometimes semantical, sometimes morphological and sometimes syntactical. The result was that the application of the word-classes according to the earlier views was considered no longer scientifically warranted. Thereupon new questions arose, like: "what is a word?", "what is syntax?", "what is a sentence?" etc. etc. Up to the present no generally satisfactory solutions have been found.

It is easily understood that all these doubts also caused uncertainty to those who intended to describe the grammatical system of one single language. A careful linguist ought to have solved all those problems, at least as far as the language he wished to outline was concerned. Usually he proceeded by means of a compromise between traditional grammar, and the particular points of view which the writer brought forward, due to his knowledge of the language he described. The results were often not too bad, but from a scientific point of view they were unsatisfactory. Take for example the grammatical analysis of Chinese. Because this language possesses no formal categories complete with paradigms, and has only very few syntactical ancillary words, it was usually said that the Chinese language had no grammar at all and that the only way to master the art of the interpretation of texts lay in reading a good deal of texts. Still, the fact that this was possible, proves that there had to exist a certain system, susceptible to being described.

*) Lecture given in the Leyden Linguistic Society "NOMEN" on 14th December 1948.

Now there are of course from early on still other and more primitive ways to describe a language. One is: to make lists of words, with an occasional little sentence. This is in particular the method practised by explorers, who often knew nothing about the science of linguistics and who of course often lacked any opportunity to extend their knowledge of a certain language. Curiously enough the well-known linguist Schuchardt defends such a method when he says: "...there exists only one grammar and this is called the rules of meaning, or rather, more correctly, the rules of signification.... The dictionary does not present material which is different from the grammar". ("...es gibt nur eine Grammatik, und die heisst Bedeutungslehre oder wohl richtiger Bezeichnungslehre.... Das Wörterbuch stellt keinen anderen Stoff dar als die Grammatik" Lit. Blatt f. germ. u. rom. Phil. XXXVIII, sq., quoted in de Saussure's *Cours*). One might say that this opinion is the result of the scepticism brought about by the modern linguistic investigations; it denies all relations according to fixed rules between the elements of a language. No wonder that Schuchardt's views met with general opposition; one of his opponents being Pos who has said that grammatical categories are in any case aids to interpret a language, and even more than that.

A method slightly related to this more primitive form, is that which is applied in our schools for the elementary teaching of foreign languages. It operates with word-lists and short sentences, which elucidate what has been learnt; it operates especially with exercises. Gradually the classical theory of the parts of speech and of the syntactic categories are absorbed in it. Approximately the same procedure is followed in what the Germans call a "*Konversationsgrammatik*" and the results are often highly satisfactory. But in these cases this method has not yet been elevated to the status of a scientific principle.

Of course, the object or the public in view of which one wishes to write a grammar, is far from unimportant. Practical manuals for the use of a foreign language, like "Easy Method for German" or for Malay, and, likewise, texts for elementary teaching, can quite well reach a considerable level without openly avowed linguistic principles. However, my main object here is the composition of a scientifically sound grammar, which elucidates the structure of a foreign language in such a way that linguists can use it in their studies.

Now, is it possible to indicate a general method which is able to

elucidate such a structure? I cannot prove here that such a possibility exists *a priori*, but I will take this possibility as my starting point, by way of a working hypothesis.

Nobody will deny that for every language a special method may exist. The author who describes a language may have formed a certain image of the system he is to describe and he will reproduce this in his own way. But the point at issue is whether it is possible to coordinate those systems of description from some higher vantage-point, so as to make it possible to compare different languages, based on these descriptions.

A great many grammars do not so much describe and classify the linguistical material, but are rather grammatical investigations. Such works are often incapable of providing a clear picture of the language under survey. Rather, they are preliminary investigations, which may provide elements for a later, detailed description. And although a scientific grammar will of course always have to use the results of earlier investigations, the problem which I pose here is still different, namely: is it possible to indicate a general method for classifying the results of this investigation according to a definite system — a system applicable to all languages?

By way of a first, general question: should the starting point for a description be the elements, or a linguistic whole? Or, to put it more simply: should one start with the sounds or the words or the sentences? Let me say rightaway, that according to my view a good grammar should always start with the sentences, and therefore I should first voice my criticism of the other methods.

A great deal has been written — and some of it in quite abstruse language — on the relationship between the elements of a language and the language as a whole; a general survey may be found in N. J. Langeveld's thesis "*Taal en Denken*", "Language and Thought" (1934). There exists unanimous agreement on the fact that an element as part and parcel of an utterance is different from the same element considered by itself. A word can have many meanings but in the sentence it possesses only one meaning. However, there is no agreement in how far an element by itself alone — usually the word forms the object of such considerations — possesses some kind of linguistic autonomy. In case, therefore, one wants to write a grammar by first adducing the elements in order to demonstrate subsequently how sentences are built from these elements, one must begin by having certain definite ideas on this relationship.

However, there exist still smaller linguistic elements, i.e. the sounds. And so we observe how in actual fact it is customary to start a grammar with a survey of the sounds, if only to indicate how the language in question has to be pronounced, a paedagogical procedure which deserves our esteem. Even during the last twenty years new and clarifying views have come to prevail in the description of sounds, due to phonology. This method teaches us to distinguish within a language only those sounds which are functionally different and mutually opposed. In this type of study the sounds are called *phonemes*, and in this quality meaning may be attached to these smallest linguistic elements, because they fulfill a function in differentiating the meaning of the higher elements: the words and the sentences. But in this case the role of the phonemes can only be understood because of their function in the whole. And of this whole nothing is known when the grammatical description starts with these functional elements. By this I mean to say that some phonemes — like e.g. the *n* in Dutch and in many other languages — fulfill a highly important role in the flexion, or that — as happens in many languages — certain phonemes cannot occur at the end of a word or of a sentence. All this can only be understood within the system when one has become acquainted with these higher elements.

However, because we must have a general picture of the sounds of the language we are to describe, we shall have to begin with a short inventory of the sounds, indicating how they are to be pronounced. This is, however, not so much phonology as phonetics, and organically it is not possible to include it in the description of the language. As far as I know, students of Chinese start immediately by pronouncing the monosyllabic characters and not the sounds. And for some dead languages the pronunciation is so uncertain, that nobody consciously realises what is the exact meaning of the chosen notation.

Thus far I spoke about the sounds. But it is much more reasonable to start with the *words*. The word is after all the point where the material (demonstrable) aspect and the semantic (indemonstrable) aspect of the language cross each other. It is the smallest linguistic element which can have a meaning of its own. That is the reason why the denomination "word" is often used metaphorically for language in general, as in Reichling's famous thesis "The Word" ("Het Woord"). Especially in languages which possess a rich flexional system with extensive paradigms of verbal and nominal forms it would seem

reasonable to start by paying attention to the tables of conjugation and declension. This may be called the morphological-grammatical method, which is preferably used for Latin and Greek. It is, however, a disadvantage that one must at least say something about the syntactical functions of the forms so demonstrated, whilst later, in the syntactical section, a great deal shall have to be repeated that has already been dealt with in the morphological part.

These morphological grammars usually treat the pronouns after the full paradigms, and finally the words without flexion. Of these latter, there is often very little to be said from the morphological point of view, so that again one soon crosses over into the realm of syntax.

An additional difficulty — and this applies to nearly all languages — lies in deciding what is an independent word and what is not. Think for instance of the article, which possesses but little independence and which often is nothing but a prefix or a suffix. Or think of suffixes which may change into postpositions, so that there is no clear differentiation. Or of the indications of persons in verbal forms, which in actual fact lack all independence. Also the combinations of words deserve notice in this respect.

All this is connected with the difficult question of the *word classes*, which the classical grammars seemed to have solved so definitely. I do not wish to contribute here further to the solution of this problem. I only want to point out that it still remains questionable whether words in that hierarchy of linguistic elements which extends from the sound and the morpheme up to the sentence, actually all belong to the same plane. Due to their lack of independence, pronouns and pronominal adverbs and many prepositions are much closer to morphemes than the so-called lexical words — usually nouns and verbs — which often can form sentences by themselves. There are many grammars — and particularly of the Semitic languages — which always start the morphology with the pronoun. I have not made a special study to see why this is especially the case for the Semitic languages, but it is presumably based on a view which considers the pronomina as the lower elements.

Finally, the descriptive method which starts from the word has still retained a great deal of the primitive view which considers knowledge of the meaning of words as the most important. But here we meet with the most serious objection against this word method. This is, that the word as such possesses many more meanings than it can ever have in any given sentence. Now these meanings are

treated in lexicography and in semantics, but a grammar is not a handbook of semantics, except in so far as the meaning of the grammatical functions is concerned. When we consider a noun or another lexical word by itself, and with all the meanings it might possibly have, we feel that in a certain sense it is beyond grammar, because it is used for the formation of concepts in thinking. However, from a linguistical point of view it is a non-linguistic product of language, although it is the noblest product language creates. In this connection I would like to refer to the monosyllabic elements of Chinese, which, when considered by themselves, are so vague in meaning, or — which amounts to the same — which may have so unbelievably many meanings, that they can only be understood by means of additional synonyms, which give birth to the so-called “binoms”, or by means of the context in which they occur.

For all these reasons I believe it to be methodically wrong to take the word as one's starting-point for a grammatical description. This is also the standpoint of Overdiep in his modern Dutch grammar and in his stylistic grammar. Overdiep even says: “It is impossible to define the meaning of the word outside the sentence. In several respects, the word is a product of the fancy of learned and unlearned linguists¹⁾”. He even says: “The word and the sounds are only mentioned here in so far as they also help to establish grammatical categories²⁾”. On this point he has been violently attacked by Reichling, who assumes that the proper meaning of the word is essential for the understanding of a sentence. Also Langeveld has attacked Overdiep and accused him of dualism. For myself I must confess that I remain in favour of Overdiep's syntactical approach. Reichling states that a sentence consisting of nonsense words has no sense, but if we are to make the sentence the starting point of our enquiry, we must surely start from a sentence which does make sense, otherwise there is no sense in determining the functions of the elements.

It would be pleasant if we had a definition of what a sentence is, a definition which would satisfy everybody. In his book “What is a sentence?” (*Was ist ein Satz?*) Johann Ries has collected no less than one hundred definitions. I rather like his own definition: “A sentence is the smallest grammatically formed unit of speech, which expresses its content with reference to the relation of this content to reality”.

¹⁾ *Zeventiende-eeuwse Syntaxis* § 3, p. 6-7.

²⁾ *Stilistische Grammatica*, p. 8.

(*Ein Satz ist eine grammatisch geformte kleinste Redeeinheit, die ihren Inhalt in Hinblick auf sein Verhältnis zur Wirklichkeit zum Ausdruck bringt.*) Without expressly wishing to give a definition, Overdiep says: "The sound-form by means of which the speaker or writer manifests himself, is a sentence or a complete whole of sentences in a context". It always remains slightly arbitrary and subjective to define what constitutes a sentence. I think that there is a sentence as soon as we can attach a meaning to a linguistic utterance. Under such circumstances a sentence like that may quite well consist of one single word; however, this is not the abstract word with its many possible meanings.

When compiling a grammar, one shall have to start with the smallest possible sentences, sentences which in contrast to the word are only susceptible to one single interpretation. Here again we can find a link with the elementary teaching of foreign languages in our schools, which likewise starts with short sentences.

Before saying something more about this method, I would like to stress that it is desirable, particularly in the case of lesser known languages, that an introductory survey is provided of the sound-material with which the language under review operates. I already referred to this when speaking about the individual sounds, but it remains also necessary regarding the ways in which larger linguistic elements in general are constructed from these sounds, e.g.: how syllables are formed and in which manner sounds can be combined. In the same way the occurrence or absence of accent and intonation have to be mentioned in an introduction concerning the demonstrable language-material. However, it will be preferable at this stage not to speak of words as yet, because the functional form of these words should be discussed later, taking their function in the sentence as our starting point. The actual formation of words has to be reserved until later.

Now I have slightly cleared the way to start to discuss the method which I would recommend. I cannot pretend that it is in any way new or original, but I have found this method particularly efficient when some time ago I compiled a short comparative survey of the Semitic languages. Of course, one may quite well say that what is valid for Semitic languages need not be valid for all other languages. And I cannot prove that this is true; I only wish to outline roughly how, starting from the sentence, we may construct a method which is applicable also to other languages. Sentences occur after all in all languages

and they are always — or at least they can be — utterances independent from other linguistic elements. Furthermore, this method implies a lack of severely maintained distinctions between syntax, morphology and phonetics. All these will get their due and can be developed more or less, depending on the scope of the work and on the available material. The main point is that analysis and comparison of the different types of sentence enable us to arrive at a characterization of the parts of the sentence or the elements of the language and of their function.

The hardest part to elucidate theoretically is the beginning of the undertaking. The sentences have to be divided according to main types, and in order to make comparison possible, the shortest possible sentences have to be taken; this can be done by eliminating all those elements which are not indispensable for understanding the sentence. Usually one-word sentences will remain. And amongst these sentences one type is sure to be found, viz. the type which expresses an occurrence. When we study this type, we are immediately set on the track of the verbs, provided of course that the language under review contains a category which warrants this name. Such sentences we may call *sentences of occurrence*. Next, we find in all languages a type of sentence which normally consists of two elements, of which one qualifies or predicates the other; these are *predicative sentences*. Now a great many sentences can be formed which only consist of one word, but where it is clear that another element has been eliminated, with the result that they continue to belong to the predicative sentences, as e.g. when saying "good" one means "this is good". Another type of one-word sentences comes into being because the sentence-element which contains the occurrence has been dropped, as e.g. saying "my book!" when meaning to say "give me my book".

It is not always easy to distinguish these types clearly, but this has to be carefully considered for every language. This is because the sentences of occurrence can always be extended by means of a word or an element which performs the action which occurs, viz. the subject. The shortest type of sentence of occurrence is e.g. "he sees"; but with the subject further defined it is "the man sees". In the latter case this sentence may be equated — as is often done in Dutch — with a sentence of the type "the man is good". There exist no great objections against doing this in Dutch, in particular, because in the last sentence also the copula "is" was used. There are, however, other types of language, like Arabic and Malay, where the sentences of

occurrence are distinguished much more sharply from the predicative sentences.

In any case, I maintain that by making our sentences of occurrence as short as possible, we discover those forms which we might call verbal. Once these have been established, one may proceed to arrange these verbal forms in order and to establish their paradigms. This also provides us with an opportunity to scrutinize more closely the general principles of the construction of words and the phonematic structure of the forms indicated. It enables us likewise to discuss the syntactical functions of the categories of the verbal forms (persons, tenses, moods).

In languages which are either poor in forms, or in those which, like Chinese, possess no forms, the morphological treatment will of course only be very succinct or even completely lacking, but the functions — whether distinguished by forms or not — can always be discussed.

The next step will depend on the structure of the language under review. In case the verbal forms take prefixes or suffixes or even infixes, which in combination with them form larger word structures, such suffixes etc. can be treated directly in continuation of the verbal forms.

To these may be added those small adverbial elements (pronominal adverbs, negations, interrogative particles, conjunctions) which accompany verbs. Only then we should treat the more independent elements which may accompany verbal forms, and which in a general way determine the latter. In this way we obtain an opportunity to refer to those elements which occur as subject or object or as another determinative of the verb, and these are first of all the nouns. Usually it is possible to indicate at the same time that these substantives can also occur as the subject or as the predicate of predicative sentences, and this provides an opportunity to discuss the different syntactical functions in which the substantive may occur within a sentence, and to mention also, if there are reasons for doing so, the morphological changes which accompany these functions.

Here the difficulty arises that some nominal forms, as in particular the genitive, can only occur as further determinations of another substantive. Whether these adnominal forms are to be dealt with immediately in the paradigm of the substantive or whether their treatment is to be postponed will depend on the system of the language under review.

In case also substantives can be provided with prefixes (as e.g. the article) or suffixes (pronominal possessive elements) which together constitute larger word structures, these have to follow the morphological description of the substantive. Of course the indications of genus or class belong to this group.

Then the infinitives belonging to the verbs can be discussed as special cases of independent nominal forms; at the same time there is an opportunity to adduce the independent forms of the personal and other pronouns, and their flexion.

Having discussed the nominal forms which may accompany verbs, it will usually be preferable to discuss those independent elements which may accompany nouns by way of a closer definition. Here we have to think first of the attributive relations (especially the genitive) and also of the adjectives and their flexion (if it exists). This is to be followed by the *attributive* pronouns.

Here too is the place for treating the adjectival nominal forms of the verb: the participles, the way in which they are formed and their other peculiarities.

Subsequently it will usually be the most convenient to deal with the special category of the numerals, which, due to their flexion and their syntactical use, are treated now as substantives and then again as adjectives.

The treatment of the nouns may be followed by a discussion of the linking of nouns with prepositions or postpositions and of all the syntactical peculiarities which occur in those cases. Here the conjunctions which connect nouns are also to be treated.

This is to be followed by a discussion of the remaining adverbial determinations of the verb. They might have been discussed earlier, when treating the verb, in so far as they were uninflected pronominal and other adverbs (negation, questioning particles, intensifying particles). However, all those adverbial forms which are derived from nouns (like adverbial adjectives), as well as those which belong to verbal stems (gerunds), have definitely to be treated here.

At the end there should come a discussion of composite sentences, of which the larger elements by themselves constitute sentences, either subordinated or coordinated. And of course all conjunctions — if these exist — are to be mentioned here. As, however, composite sentences undergo a widely differing treatment in different languages, the description of these sentences has to be adapted to the actual circumstances.

It goes without saying that in all the parts mentioned due attention should be paid to the rules for word-order, rules which occasionally are highly important.

The method sketched in the preceding lines should enable us, I am convinced, to create an image of the language, in stages which follow logically one from the other. In view of the complicated and multidimensional nature of any language, our analysis will always remain more or less faulty. Still, it is to be preferred to that complete disregard for structure, which throws together all kinds of categories whose syntactical functions so often lie in completely different fields.

Perhaps I have let myself be guided too much in this survey by the concepts of Latin grammar on the one hand and by my experience with Semitic grammar on the other. Hence, this method still has to be tested as far as other kinds of languages are concerned. But I do assume that there exists a generally applicable method. I also believe that this method should be preferably applied for short structural surveys. It is only to be expected that longer grammatical descriptions will lead the authors to side-issues, so that they tend to neglect the main lines.

Finally: I have not wished to provide a theory for a "general grammar". It has long since been recognised that this old ideal is a figment of the imagination (Reichling). But I did wish to indicate a practical method for rendering language-structures understandable and comparable. Perhaps several methods are possible.

HOW TO DETERMINE THE "PHONOLOGICAL WORD" *)

I only know the expression "phonological word" from two publications by A. W. de Groot, "Wort und Wortstruktur" (in *Neophilologus* XXIV, 3), and "De structuur van het Nederlands" (in *Nieuwe Taalgids* XXXIII, 5). In the first article de Groot points out that the concept "word" has to be considered in different ways, in accordance with the various levels of the linguistic phenomena under survey. Words are always "more or less independent units" (*mehr oder weniger selbständige Einheiten*), but in view of the different areas of investigation we can differentiate between the semantic, the phonological and the phonetic word; apart from these, de Groot also recognizes the syntactical and the identificatory word. If I understand de Groot correctly, the identificatory word is the counterpart of the phonological word, or a slightly different description of it, whilst in the same way the syntactical word is the counterpart of the semantic word.

It is clearly apparent from de Groot's considerations, that in the past the clarity of these distinctions has greatly suffered from the preponderant concept of the "semantic word". The "semantic word" corresponds most of all to the traditional view of the word as being an indication of an "idea". This is also exemplified by de Groot's definition: "The semantic word is a linguistic sign or a combination of linguistic signs which indicate something in the reality outside of language, but which are not composed of signs which indicate something in the reality outside of language" (*Das semantische Wort ist ein Sprachzeichen oder eine Kombination von Sprachzeichen, die etwas in der ausser-sprachlichen Wirklichkeit bezeichnen, aber nicht zusammengesetzt sind aus Zeichen, die etwas in der ausser-sprachlichen Wirklichkeit bezeichnen*). The main point here is the meaning of a word as an "idea" in the "reality outside of language"; the form, the "material cloak", recedes completely into the background in this case. One might therefore even say that the semantic word no longer belongs to language. It is a product of the activity of the speechmaking community, which has now been removed from the material restraints of the linguistic

*) Translated from a lecture in Dutch, held on Oct. 23rd, 1948, before the Linguistic Circle.

forms and which has come to fulfill a higher function, viz. as a vehicle of ideas, creating order in human thinking. It is, as Pos has expressed it, a linguistic phenomenon, that is to say "detached from application to concrete reality" (*Lingua* III, p. 285). However, it remains true, that meaning likewise continues to play an important role in syntax, and that therefore the study of the syntactical aspect of the semantic word, or of the syntactical word has its definite place in linguistics.

However, in the case of the phonological word we are on a lower level, where beside the meaning also the form is of considerable importance. But this form has to be considered phonologically. De Groot has given us two definitions:

1⁰. "The phonological word is a unit, created by those phonological means by which the unit of the semantic word can be expressed in the language under review" (*Das phonologische Wort ist eine Einheit, die durch die phonologischen Mittel zu Stande kommt, mittels derer in der betreffenden Sprache die Einheit des semantischen Wortes zum Ausdruck gebracht werden kann*; *Wort und Wortstruktur*, p. 4);

2⁰. — but restricted to Dutch — "the immediate succession of a certain series of phonemes, which are produced with one single impulse of movement and with a certain structure of syllabic accent" (*De structuur van het Nederlands*, p. 7). In the second definition the semantic element is not mentioned, but it is evidently presupposed.

I do not object against de Groot's definitions, but it seems to me that they do not assist us sufficiently in the concrete case, when we wish to determine what is the phonological word in a given text. In what follows I will try to indicate the main lines to be followed in such a case and in so doing we will automatically come to an investigation of the concepts "word" and "morpheme" as treated in the second chapter of Eringa's thesis "The phonological concept of quantity" (*Het phonologisch quantiteitsbegrip*). On this level I do not think it possible to make a clear distinction between the concepts "word" and "morpheme" as done by Eringa and we will have to decide that "phonological word" has to be equated with "morpheme".

Eringa (op. cit. p. 24) quotes Trubetzkoy who says that every word is "a complete unit of sounds, a pattern" (*eine lautliche Ganzheit, eine Gestalt*). And then he mentions a number of phonological rules which are valid for the word, viz. for the *beginning* and for the *end* of a word. One might ask, however, what this means; after all, how can one determine exactly within a *sentence* what is the beginning and what is the end of a word. Of course, this is quite possible at the

beginning and at the end of a sentence, but in that case these are merely certain aspects of the word.

Next, he discusses words of the type *onthouden* ("to remember") and observes that *ont* can only be used as part of a word, and *houden* both as part of a word and as a word. He calls both *morphemes*, but not all morphemes are words. The starting point of this argument is that the word is "independent", but that the morpheme is not. But how do we know that the word is independent, or rather which meaning are we to attach to this idea of "independence"?

Now Eringa also provides some points where different phonological rules apply to the word and to the morpheme. In his examples he operates exclusively with composite words. Because in these cases certain morphemes succeed one another, there arise combinations of consonants like *nw* in *onweer*, sometimes accompanied by sandhi; these combinations of consonants cannot occur within a morpheme. Hence, here the composite word is assumed to be a "word" without any further proof, again with an appeal to its "wholeness"; after all, the word is not equal to the sum of its phonemes. However, does Eringa likewise consider the composite word as a morpheme? In view of his earlier considerations he has to do so, but in that case he acts contrary to his rules. And, moreover: *onweer* is a morpheme in the word *onweerswolke*.

Apart from this, the same sandhi phenomena occur in the normal succession of two words, cf. *ontbreken* ("d + b") and *wil je mij mijn hoed brengen?*

Eringa also distinguishes between *the morpheme as such* (p. 30), e.g. *ont-*, and the morpheme as a *word-morpheme*. But what is the morpheme as such? How do we know that *as such* it ends in *t*, when it never occurs at the end of a word? Nevertheless he states (p. 32) that the morpheme as such is independent, a whole, a "*Gestalt*".

Eringa knows languages where no distinction between morpheme and word is possible, as e.g. in Burmese. He quotes Trubetzkoy's opinion, that in many languages we have to consider as the higher phonological unit (i.e. those combinations of phonemes which Eringa calls word or morpheme) not the word, but the morpheme: "i.e. a complex of phonemes which occurs in several words and which in those cases is connected with the same (material or formal) meaning" (*ein Phonemcomplex der in mehreren Wörtern auftritt und dabei mit derselben (materiellen oder formellen) Bedeutung verbunden ist*; Grundzüge, p. 225). Eringa opposes this view by criticizing the form of this

statement and by remarking that both the morpheme and the word are independent acoustic units, but to me this seems merely to beg the question.

For the time being, therefore, I would prefer to maintain my opinion that on our present level of phonological consideration the ideas of "phonological word" and "morpheme" are identical.

After these negative remarks I will indicate how I believe research should be directed in order to come to the determination of Trubetzkoy's *higher phonological unit*, de Groot's *phonological word*.

The point at issue is how to indicate these phonological units in a given text. Somewhat arbitrarily it will be better to restrict this text to a *sentence*. As much as possible I will keep to the definition Johann Ries has given of the sentence, viz. that it is the smallest (grammatically constructed) unit of speech (*Redeeinheit*) which expresses its content in view of the relation of this content to reality. We have to understand this in such a way, that the sentence has *meaning*, that is is *not nonsense*, and that it has been constructed from parts which likewise possess meaning. In certain cases there may be only one such part, with which the sentence is identical in that case.

In our considerations we have to add that the sentence also is a phonological unit, a still higher unit than the phonological word or the morpheme. It is from this point of view that Eringa has also discussed the sentence; I will come back to this point later.

How are we to distinguish the meaningful parts? In the first place we can apply the phonological method, by investigating which elements may be replaced in such a way that the sentence remains meaningful, with a different meaning as a whole, however. *Peter is ill* — *Peter is well* or *Peter was ill* or *John was ill*, etc. Reichling has discussed this "possibility of replacement" in his chapter on "The word as a syntagma" (*Het woord als syntagma*, Het Woord, p. 376), but it is also possible to use this method on the phonological level. It is characteristic for this method that in investigating the text all the other linguistic material at our disposal is used, just as in determining the phoneme in a language one looks for other sounds which might take its place and which then change the meaning of a word.

In this way it is possible therefore to trace those elements which possess meaning¹⁾. But this is not enough, because in this way it is

¹⁾ "Meaning" in a behaviouristic as well as in a psychological sense.

impossible to find the difference between those elements which are "independent" and those which only occur as "elements of a word" and which therefore are not independent. Beside the oppositions discussed above we have e.g. *ik geloof* — *ik beloof*. In the second place the method of replacement often does not allow us to determine exactly the linguistic form of the word under survey, as sandhi may affect both the beginning and the end, e.g. *dit is een goed huis*, but *je moet dit huis goed bekijken*.

In order to meet both objections one may apply the method of "isolation". That means to say that the sentence-element, which is to be determined as a phonological word or as a morpheme, is placed by itself or considered apart, or again tested whether it may be used as a *word-sentence*. In this case, however, it is a primary condition that this element be meaningful, but at this level of our investigation we should pay no attention to the abstract, semantic meaning, but only to the meaning which this separate linguistic element possesses as a *sentence*. It is possible, for instance, to say: *goed* ("good"). Depending on the circumstances this may be taken in the sense of *het is goed* ("it is alright") or as an answer to the question: *hoe maakt U het?* ("how do you do"). Greater difficulties are experienced in Dutch with an ordinary noun like *huis* ("house"), because as a *word-sentence* it always occurs with the article. On the contrary *het huis* ("the house") may well be a fully comprehensible utterance. Still less success is obtained with prepositions: *van* ("of, from"), or with articles: *het* ("the"), and equally little, of course, with word-elements like *ont-*, or unaccented suffixes.

By isolating the word and by investigating whether it possesses meaning as a *word-sentence* we meet the demand of proving the *independence* of a word, made i.a. by Eringa. Independence cannot be proved in any other way than by isolating the word as a *word-sentence*. It is incorrect to define this independence as semantic independence, because the latter should not play any part in the phonological considerations with which we are concerned (Reichling opp. Overdiep).

One may of course remark, that the word used as a *word-sentence* can never have the same meaning it would have in a context. This is true, but, as I remarked before, on this level the meaning is unimportant, and this applies both to the semantic and the syntactical meaning.

However, by means of isolation it is impossible to approach

those elements which cannot occur as word-sentences. It is possible to observe per eliminationem that *ont-* possesses meaning by juxtaposing *ontvangen* ("to receive") and *vangen* ("to catch"). The same applies to the prepositions. And in case of the article one even has to appeal to the criterion of *divisibility*: *het grote huis* ("the large house") beside *het huis* ("the house"). Nevertheless this method allows us to trace independent and dependent elements.

The method of isolation is also enlightening for the determination of the *formal* side of the "phonological word". Elements which can be isolated possess a clearcut beginning and a clearcut end, like e.g. *goed* ("good"). In most cases it is therefore possible to establish fully the form of the "phonological word". Nevertheless, this determination is merely relative, because such a word all by itself is after all only one of the various forms in which it can appear. Yet we are accustomed at present to consider these isolated forms as the standard form, although our orthography does not always do so, see e.g. the spelling of the Dutch *hoed* ("hat"), or of the French *fait*.

Still, the fact remains that the "phonological word" in a text may be constructed of phonemes different from those used for the word in isolation. If we now apply the formula which is used for the phonological consideration of phonemes, there will be no objection against calling *variants* those different forms in which the "phonological word" or "morpheme" appear. One can hardly speak here of "phonetic" variants, although in the end they are brought about by phonetic causes. In the present case, however, the actualizations of the variants can be completely determined (phonologically) as far as the phonemes are concerned; perhaps one might speak of *phonological variants*. Such variants are the forms *gut-but*, *gud-bud*, *hat-bad*, *ik-ig*, etc.

In case the isolated sentence-word is considered as the normal form of the phonological word, as is usually done, one starts from the premise — which I believe to be correct — that the phonological rules which apply to the end of the word are equally valid for the end of the sentence. Bringa, however, denies this and he distinguishes in general between the use of a morpheme as a sentence-phoneme and its use as a word-phoneme (p. 37). Here he aims of course in particular at the so-called sandhi phenomena, on which I have already touched. However, he also applies this distinction to the end of the word as being contrary to the end of the sentence. In discussing the phenomena in the Greek language he mentions the phonemes *i*, *u*, *r*, *n*, *k*, *s* as those which may be used for the end of a word; these same phonemes

can be used at the end of a sentence, except the phoneme *k* (p. 118). The formulation of this rule is brought about by the word *oû(x)*, which is sounded *oûx* before a vowel, but always *oû* at the end of a sentence. The assertion that this word may end in *k* is, I believe, completely arbitrary, because, I repeat, there is no criterion for the definite establishment of the end of a word. It would be better to say that *oûx* is a phonological variant of *oû*. What has to be considered as the final phoneme, is a matter of convention.

By way of illuminating examples I would like to quote some phenomena in classical Arabic as parallels. They concern the so-called *pausa*, i.e. the form of the end of a word at the end of a sentence or at least at the end of a period followed by a pause. The rule is that in the *pausa* a word must never end on a short vowel, but it may do so in the context. The endings *-a*, *-i* and *-u* which occur in the context are therefore not pronounced in the *pausa*; neither are the endings *-an*, *-in*, *-un*, except that *-an* in certain cases may be replaced by *-a*. For instance, in the context we find *al-baitu*, 'the house', *baitun*, 'a house', but in the *pausa* always *al-bait* or *bait*. There is a parallel phenomenon at the beginning of a word, in case this is provided with the article *al-*. Only at the beginning of the sentence the *a* of *al* is pronounced; in the context it disappears after the vowel of the preceding word. One should therefore say that the context-form of a word is e.g. *lbaitu*, whilst the form of the sentence-word is *al-bait*. Both forms, however, are variants of the same word, from which the norm-type may be chosen according to convention.

The methods of investigation discussed above, viz. the possibility of replacement, of isolation, and perhaps of division, are still insufficient for determining exactly the higher phonological unit, the phonological word. It seems to me that Bloomfield must have followed a similar train of thought when amongst the postulates and definitions given by him he says: "A *minimum* free form or morpheme is a *word*" (Language II, 1926; cf. *Lingua* III, p. 320). But still the question remains, what is to be considered as a minimum. In Dutch at least no solution is provided for 1. the so-called composite words, and 2. the words composed by adding dependent morphemes. If we compare *bomen* ('trees') with *boom*, the latter is a *minimum free form*, but in that case this does not apply to *bomen*.

The only kind of language to which such a definition might be fully applied are the so-called monosyllabic languages, such as Chinese

and Burmese. Concerning this last language Eringa also observed that there exists no difference between word and morpheme. In these languages it therefore seems quite simple to determine the phonological word. Only, it is doubtful whether in these languages it will ever be possible to speak of *words*; at least, in case isolation is applied and hence a monosyllable is pronounced, it is completely impossible to appreciate it as a sentence with meaning, because these linguistic elements are highly homonymous and only obtain meaning as sentences when they are uttered in connection with one or more other similar forms. Nevertheless, I still believe it to be correct to see in these monosyllabic forms the "higher phonological units" we have been looking for.

In languages where word-composita are unknown, but which form words by means of prefixes or suffixes, one obtains good results by dropping the distinction between "independent" words and "dependent" morphemes. A Turkish word clearly consists of a root-syllable, followed by one or more suffixes. It is nearly always possible to isolate the root-syllable as a sentence-word, e.g. *at*, "a horse", *atlar*, "horses"; *dur*, "stop!", and *durur*, "he stopped". Although in my refutation of Eringa's arguments I have rejected the distinction he makes between "words" and "morphemes", this does not imply that it should be completely rejected. When a language like Turkish clearly distinguishes — reinforced moreover by the vowel-harmony — between independent and dependent elements, we have to follow the indications inherent in this system. This means to say that we have to assume a hierarchy of higher phonological units; some are independent, others are not. The question remains, however, whether it is correct to consider also the words composed of a root-syllable and suffixes as phonological units. I believe we may do so, provided we speak of a "composite phonological word". In the same way we may distinguish composite phonemes in the phonology of the phonemes, like *str* or *kel* in Dutch.

The hierarchy adopted in Turkish has nothing to do with syntax. Here the morphemes are both word-forming elements (as in *durak*, "stop, stopping place" with *dur*, which possesses the meaning of "to stand"), and syntactical endings (as in *durdu* "he stops").

Our observation of Chinese and Turkish has provided us with yet another method for determining the "phonological word" or the "morpheme". This consists in considering the higher phonological

structure which exists in the language to which the context under investigation belongs. This is the same as what de Groot in his above-mentioned definition of the phonological word calls "the structure of syllabic accent". Only, I believe, this structure has always to be seen as a function of the type of language to which the text under review belongs. By comparing the existing forms it is possible to establish the existence of certain central formations around which other, hierarchically secondary, formations are grouped. Very often the relation between primary and secondary elements is indicated by phonetic means. In Turkish this is quite evidently the vowel-harmony, whilst also the accent plays a certain role. In other agglutinating languages there is no vowel-harmony, but there i.a. the phonological structure of the suffixes serves to distinguish these from the root-syllable.

In the Indonesian languages the bi-syllabic structure of the basic words provides sufficient indications to discern the hierarchy. In the Bantu-languages the method described here likewise seems to provide a satisfactory distinction for the higher phonological units.

Greater difficulties are encountered in the so-called flexional languages. The very standpoint from which we have been considering language here demonstrates that the distinction between flexional, agglutinating and other languages is quite justified.

The main characteristic of the flexional languages consists in the fact that there exist higher phonological units, in which the morphemes may possess a form with recognizable component morphemes, which it is not possible to divide by means of the methods indicated above. This is what an author like E. Sapir (Language 1921, p. 144) calls "fusion". He gives an excellent characterization of flexional languages, in which, however, he also inserts psychological factors, like e.g. that there has to be "expression of relational concepts in the word". Because in his attempts to arrive at a characteristic division of languages Sapir uses phonetic, semantic and syntactical traits simultaneously, his division becomes extremely complicated. However, as long as we solely keep to the phonological-structural point of view, it seems actually possible to distinguish the flexional languages as a distinct group.

The non-flexional languages produce the linguistic material in rougher forms which are easily recognisable higher phonological units in those languages; the flexional languages operate with finer distinctions. In most cases the central or root-elements are clearly

recognisable. In an Arabic word like *maktab* the root consists of the three consonants *k*, *t*, *b*, whilst *ma-* is a prefix denoting place. However, *-ktab* is not a morpheme which can be isolated and therefore we cannot isolate *ma-* as a morpheme either. In the Latin *dominus* we cannot isolate a morpheme *dom-*, although we observe the same element in *domus*. There are many cases where separation would still be feasible, as in Sanskrit *bhavati*, where *bhava* is a form of the imperative which may occur independently whilst *-ti* might be considered as a morpheme. However, such a separation is contrary to the structure of the language, because it is much more difficult to perform it in a form like *asti*.

Also in this respect we are again compelled to view the structure of a language as a whole and to list the *fusion-forms*¹⁾ as a special type of the higher phonological unit, side by side with the *phonological words*, the *morphemes* and the *phonological combinations*.

It will be necessary to investigate and to determine the system of the higher phonological structure for every language separately, as is done in respect of the phonemes. When determining what belongs together as a word it will be possible to avail oneself frequently i.a. of the word-accent. Thus, one may say that it is inherent in the structural principles of Dutch that in general a phonological word consists of an accented syllable which contains a sounded vowel around which one or more toneless consonants are grouped. In order to find the word, recourse should again be had to the method of isolation, because in the context it is impossible to determine what belongs together and what does not. Combinations of two or more sounded syllables also occur, like *oorlog*, *arbeiden*, and many loan words, such as *examineren*. It will therefore be necessary to establish beforehand for every language those rules according to which the higher phonological units are to be determined. A language like French which does not possess a clear word-accent yields to treatment with even greater difficulty than Dutch; for instance, whether in *je n'en sais rien*, *n'en* is to be considered as consisting of one or two morphemes will depend on the admission that one single consonantal phoneme may also be a higher phonological unit.

¹⁾ It remains questionable whether "fusion" is the correct interpretation of this phenomenon. From a phonological point of view fusion is certainly correct, but in the framework of general comparative linguistics one may say that it has been in the non-flexional languages that fusion has proceeded much further and that in those languages it has caused the appearance of apparently regular forms.

Finally a word on terminology. Our starting point was the "phonological word" and then we needed other terms for the higher phonological units which we observed. Actually we should not speak of a phonological word, but just of a *word*, because it is on this very phonological level that "the word" is in the fullest degree a combination of form and meaning, even though here the meaning is not closely defined; when speaking of words on a higher level, one should always have to add "syntactical" or "semantic". The term "morpheme" is a less happy choice, because of its syntactical connotations, but I would not yet venture to suggest a better term.

REMARQUES SUR LE DÉVELOPPEMENT DES LANGUES *)

UN PROJET

Dans l'histoire d'un nombre de groupes de langues indogermaniques, c'est un fait connu que les langues y appartenant subissent un cours parallèle de développement dans lequel on distingue trois périodes, qualifiées comme ancienne, moyenne et moderne. Le critère pour la distinction de ces périodes est exclusivement morphologique et grammatical: l'ancienne période se distingue par une riche diversité des désinences nominales et verbales; dans la période moyenne, cette diversité a été réduite de telle manière que la fonction des anciennes terminaisons a été transmise partiellement à un système de prépositions, de conjonctions, d'adverbes et de pronoms, tandis que dans la période moderne les terminaisons sont réduites au minimum, la domination des mots auxiliaires ci-nommés étant devenue décisive pour l'image linguistique. Un phénomène non seulement s'alliant à ce développement, mais aussi en dépendant, est que les deux grandes catégories de formes des pronoms et des verbes prennent peu à peu des formes invariables, c'est à dire, qu'ils se montreront à peu près sous la même forme, tandis que, dans les périodes plus anciennes, les terminaisons, l'addition d'un suffixe, et la suppression ou allongement des voyelles, font d'un seul nom ou verbe souvent plutôt un système de formes coordonnées de quelque manière, dans lequel seul l'examen linguistique peut découvrir une cohérence principielle. Faisant usage d'un langage figuré, généralement indispensable dans un traité comme le présent, on peut dire que les groupes ci-mentionnés des langues indogermaniques se sont comme cristallisés au cours de leur développement. Avec cela s'accorde aussi une cristallisation, une fixation plus exacte des formes devenues plus définitives, mais ce développement sémantique n'est pas en premier lieu décisif pour la détermination des trois périodes.

Les trois périodes ne peuvent d'ailleurs pas pour chaque groupe linguistique, être marquées avec la même exactitude. Cela dépend beaucoup des temps et des circonstances, dans lesquels les documents

*) Traduit d'un fragment inédit en hollandais, conçu par l'auteur pendant les dernières années de sa vie.

linguistiques ont été fixés. Les trois périodes sont le plus exactement définies dans la plupart des dialectes germaniques et dans les dialectes romans, où le latin représente le stadium de l'ancienne période. Dans les dialectes slaves, le bulgare est seul plus ou moins proche de la nouvelle période analytique. Les autres langues slaves n'ont pas participé au développement typique en trois périodes; le stadium dans lequel elles se trouvent peut le mieux être comparé à la période moyenne des langues germaniques et romanes, quoique dans le slave aussi, il apparaît une cristallisation très avancée. Dans le groupe iranien, la plupart des dialectes est restée dans le stadium moyen, quoique le persan moderne est certainement parvenu au stadium moderne. De même, les dialectes du groupe arien dans les Indes prochaines montrent encore plutôt la structure morphologique de la période moyenne. Seul l'arménien offre une image qui diffère du développement typique esquissé ci-dessus: le vieil-arménien se trouve, observé au point de vue morphologique et historique, au degré moyen, mais les dialectes arméniens modernes n'ont plus de prépositions du tout et opèrent avec un nombre agrandi de suffixes, tandis que la conjugaison des verbes, comme à l'ouest, est très simplifiée, mais, à part la conjugaison périphrastique, enrichie par un système de préfixes de temps et de mode, que nous rencontrons d'ailleurs aussi dans les langues iraniennes. Le processus de cristallisation ne s'accomplit donc, dans les différentes parties du domaine indogermanique, pas parallèlement, mais tout de même de manière à ce que l'ancienne richesse et le caprice des formes disparaît pour faire place à des formes et à une construction plus fixe. Un jugement plus exact de la nature de ce cours plus ou moins parallèle des langues indogermaniques est seulement possible si nous le comparons à ce qui se joue dans le domaine des langues non-indogermaniques. Le matériel de comparaison est, il est vrai, plutôt maigre, car il y a peu de langues non-indogermaniques que nous pouvons suivre à travers une période de quelques milliers d'années. La plupart de ces langues ne nous est connue que depuis moins de cent ans, dans leur état parlé actuel; à côté de cela, il se trouvent quelques langues dont nous ne connaissons que la forme très ancienne, comme le soumérien et l'élamite, desquels on ne connaît pas de descendants modernes.

Parmi les groupes non-indogermaniques que nous pouvons suivre jusqu'aux très anciens temps, se trouve le groupe sémitique, où, dans le sens large du mot, on peut aussi compter l'ancien égyptien. Comme on le sait, la proche parenté grammaticale de ces langues saute

aux yeux. Elle consiste en ceci, que les consonnes dans la formation des mots jouent un rôle beaucoup plus important que les voyelles, et que la forme d'un nom ou verbe d'une part est ancrée dans un groupe de trois — ou moins souvent aussi de deux — consonnes consécutives, tandis que, d'autre part, les voyelles placées avant, entre ou après ces consonnes prêtent au mot l'individualité sémantique et souvent aussi grammaticale.

Comme système, ce phénomène est étranger aux langues indogermaniques, quoique partout dans ce domaine linguistique il se trouve dans une certaine mesure. Et ce qui est encore plus important, c'est que, dès les plus anciens temps, ce système se rencontre dans les langues sémitiques, ou plutôt, c'est pour nous le critère des langues sémitiques. Cette dernière constatation prouve aussi que la parenté entre elles des langues sémitiques est beaucoup plus un „*petitio principii*” que la détermination de parenté dans les langues indogermaniques, où l'élément diachronique-étymologique est décisif. Car les langues berbères et d'autres, quoiqu'ayant d'éléments communs avec les langues sémitiques, ne sont pas comptées — d'ailleurs un peu arbitrairement — parmi ces dernières, justement parce que le rôle d'un système de consonnes y occupe beaucoup moins le premier plan. Nous pourrions peut-être compter les langues berbères, dont la parenté mutuelle ne soulève aucun doute, pour des raisons étymologiques comme appartenant au groupe sémitique, si ces langues étaient connues en leurs plus ancienne période. Mais ce qui importe de constater ici, c'est que les langues sémitiques, dès les premiers temps que nous les connaissons, sont dominées, dans la formation des mots et par là-même aussi dans leurs structure grammaticale, par un système à base phonétique, lequel système, au cours du développement de ces langues, ne change que rarement de caractère, c'est à dire n'évolue pas. Il y a bien un nombre de ces langues, où, dans la toute dernière phase, le système sémitique est complètement supprimé. C'est le cas des dialectes araméens orientaux, où la conjugaison est tout à fait supprimée et où le système a fait place à celui des dialectes iraniens modernes; c'est aussi le cas de l'amharique, dont la grammaire fait voir un système à suffixes qui va hors du sémitique. De même, le copte, qui n'a pour ainsi dire plus rien gardé de la conjugaison vieil-égyptienne, a développé un système de verbes auxiliaires et autres particules, où les anciennes formes nominales et verbales ont acquis une plus grande stabilité que c'était le cas autrefois. Seulement dans le cas du copte, à mon avis, on pourrait parler

d'une évolution naturelle d'une langue sémitique, pour autant qu'on veuille compter le vieil-égyptien dans ce groupe de langues.

Maintenant nous allons passer à l'étude du grand groupe de langues qu'on appelait autrefois *langues agglutinantes*, par un terme qui devait indiquer le contraste avec les langues à flexion. Ce sont les langues dans lesquelles les substantifs et les verbes, en général dans toutes les relations grammaticales gardent le même thème invariable, qui peut être muni largement de toutes sortes de suffixes. La détermination de la parenté réciproque de ces langues offre des difficultés assez particulières. Car certains groupes restreints de langues, apparentées sans doute étymologiquement, comme le groupe turc, fénno-ougrien et mongole, ne maintiennent entre eux aucune parenté étymologique. Autrefois, on a réuni ces groupes, avec encore quelques autres, comme le japonais, dans le grand groupe des langues dites ouralo-altaïques, mais ce groupement ne semble pouvoir être soutenu qu'en vertu du type linguistique. En outre, ce groupement était, comme tel, incomplet et exclusivement géographique, car il y a des quantités de langues en dehors du groupe ouralo-altaïque qui montrent le même type linguistique, comme par exemple les langues dravidiennes et un nombre de soit-disants langues soudanaises. Ce type, remarquable par l'invariabilité des racines, emploi multiple de suffixes, de prépositions et de conjonctions, peut-être envisagé avec un certain droit comme le type idéal d'une langue simple. Surtout la grande stabilité et invariabilité des racines prêtent à ces langues une sécurité sémantique et une grande simplicité; les moyens formels plus ou moins restreints donnent tout de même à la structure grammaticale une certaine lourdeur et ambiguïté. Beaucoup de langues indo-germaniques sont devenues dans leur stadium ultérieur de développement assez semblables à ce type. C'est le cas surtout de l'arménien moderne, mais aussi différentes langues germaniques modernes, qui ont presque perdu la distinction des genres grammaticaux, prennent cette direction-là, excepté qu'ici les prépositions et les conjonctions donnent une plus grande vivacité à la langue. On peut dire la même chose de l'espéranto qui s'est figé dans une mesure assez inquiétante.

Or l'histoire des langues à suffixes est très peu connue. Nous possédons des spécimens du turc et du japonais qui remontent à environ mille ans; les autres langues de ce type ne nous offrent aucune perspective historique ou bien une très brève. Par hasard le nubien est connu dans certains documents vieux-chrétiens, mais

ici aussi le type linguistique n'est pas essentiellement différent de l'actuel. En ce qui concerne spécialement le groupe fenno-ougrien, on a déjà réussi à constater avec les méthodes de l'indogermanistique que la parenté étymologique avec les langues indogermaniques semble exister; les langues de ce groupe présentent aussi dans leurs racines une fixation un peu moindre que les autres langues. Dans les temps ultérieurs elles se sont même montrées capables de prendre des prépositions préverbales comme en hongrois. Pourtant, ces modifications ne sont pas telles qu'on puisse dire que le système linguistique soit abandonné. Depuis le temps que nous connaissons ces langues — et c'est surtout le turc, connu depuis 750, qui pèse dans la balance — il n'y a pas trace d'évolution dans ce type linguistique. On a bien fait récemment une distinction entre des groupes de dialectes turcs anciens, moyens et modernes, mais on ne peut pas trouver d'autres critères que les chronologiques. On peut seulement observer qu'une grande quantité de suffixes et d'adverbes sont venus élucider les relations entre les mots et ont donné ainsi aux langues susnommées une apparence plus moderne.

Un autre groupe de langues assez bien connues sont les langues malayo-polynésiennes. Parmi celles-ci le javanais est connu depuis plus de mille ans et on distingue même le javanais ancien, moyen et moderne. Ces langues aussi sont caractérisées par un système très stable et invariable.



ISLAMIC STUDIES

DROIT DE L'ISLAM ET DROIT ISLAMIQUE*)

Il paraît utile d'opposer l'expression „droit de l'Islam” à la dénomination „droit islamique”. On peut entendre alors par “droit islamique” tout ce système de règles juridiques qui, ensemble avec d'autres règles de nature rituelle, forme — malgré ses variations de lieu, de temps et de groupe — une des expressions les plus caractéristiques de la religion musulmane. Le „droit de l'Islam” serait le droit qu'on trouve réellement appliqué dans les différents pays islamiques au cours de l'histoire, en rapport avec les coutumes et usances locales, infiniment plus variées encore que les différentes manifestations du „droit islamique”. Alors que le „droit islamique” est plus ou moins une unité idéale, le „droit de l'Islam” est un ensemble de règles et de pratiques, d'institutions et de décisions, et dans un certain sens de codifications, que l'historien du droit doit rechercher, souvent avec beaucoup de peine, dans les sources et les documents historiques, et, pour les temps modernes, dans la pratique et la législation actuelles.

Ce n'est pas dire qu'il serait possible de faire une séparation rigoureuse entre les deux catégories de droit que nous venons de poser. Elles sont au contraire si intimement liées, autant du point de vue de l'histoire que de celui de la méthode, qu'il serait impossible d'étudier le droit de l'Islam sans avoir des connaissances du contenu et surtout de la nature du droit islamique. D'autre part la genèse du droit islamique ne peut être comprise sans des études sur l'histoire du droit parmi les peuples musulmans.

On peut dire qu'à l'heure actuelle les conceptions erronées qui existaient autrefois parmi un bon nombre de juristes et aussi d'orientalistes à l'égard de la nature et de la fonction sociale du droit islamique ont été dissipées, grâce aux nouvelles méthodes de recherche historique et comparative introduites dans les sciences juridiques, méthodes dont les présentes „*Archives*” sont une des manifestations les plus éloquentes. Pour ce qui est du „droit islamique” ce sont avant tout les oeuvres des islamologues C. Snouck Hurgronje et I. Goldziher qui ont, vers la fin du siècle dernier, ouvert la route vers des conceptions plus nettes.

Ce serait un manque de pitié de ne pas rappeler en ce lieu la brillante

*) Paru dans *Archives d'Histoire du Droit Oriental*, Tome I (1937).

activité du savant néerlandais, si récemment décédé (le 26 juin 1936) ¹⁾ dans le domaine du droit de l'Islam aussi bien que dans celui du droit islamique, et dans l'étude de leurs relations réciproques. Pour autant que cette activité s'est manifestée dans la presse savante on trouve maintenant réunies ses contributions dans le Tome II de ses *Verspreide Geschriften* (Bonn et Leipzig 1923). Sur la base d'une connaissance sûre des sources historiques et dogmatiques Snouck Hurgronje a exposé avec une lucidité et une pénétration étonnantes le rôle historique et social qui revient à la connaissance et à l'étude du *fiqh* dans le cadre de l'Islam comme religion et dans le cadre des études juridiques. S'il a choisi, le plus souvent, la forme de la critique, c'est que surtout les problèmes coloniaux de la fin du XIXe siècle avaient provoqué déjà des exposés et des études dont il était à prévoir qu'ils serviraient de bases pour la pratique coloniale de l'avenir. En les soumettant à une critique juste et saine — qui devint de temps en temps d'une sévérité mordante —, Snouck pouvait combattre plus efficacement les conceptions erronées que par un exposé doctrinaire, lequel, quelque magistral qu'il eût été, aurait dû attendre à côté de maintes autres publications jusqu'à ce qu'on en eût reconnu les qualités supérieures. Du reste le résultat positif de ses études a été rendu depuis longtemps accessible à la science par le travail de M. Th. W. Juynboll, dont la *Handleiding tot de kennis van de Mohammedaansche Wet volgens de leer der Sjâfi'ietische School* a déjà obtenu une troisième édition (Leiden 1925). Tous les exposés des institutions de l'Islam, parmi lesquels ceux de Goldziher, de Massé, de Lammens, et beaucoup d'autres, portent l'empreinte des leçons de Snouck Hurgronje. Mais ce qui a donné une valeur particulière aux recherches du savant Néerlandais, c'est qu'il a eu la possibilité d'étudier la pratique du droit islamique, devenu droit de l'Islam, dans la Mecque et dans plusieurs parties des colonies néerlandaises, ce dont témoignent ses oeuvres sur la Mecque, sur les habitants de l'Atjeh et du Gajoland et plusieurs études qu'on trouve dans les autres parties de ses *Verspreide Geschriften*. Si l'on joint à ceci son activité inlassable pendant son professorat à l'Université de Leiden depuis 1907, on est à même de se former une idée de ce que doit la science du droit et de son histoire à cet orientaliste de grande envergure.

Ceux qui, après les premiers travaux de Snouck Hurgronje, ont fait des recherches de droit islamique, ont été surtout des orientalistes.

¹⁾ Voir l'*In Memoriam* de M. A. J. Wensinck, dans *Acta Orientalia* XV 81 ss.

Nous devons à cette activité en premier lieu des publications qui nous font mieux connaître plusieurs systèmes de *fiqh*, soit en donnant des traductions de manuels musulmans arabes, soit en donnant des résumés des doctrines d'une certaine école, ou des aperçus encore plus généraux sur le droit musulman en entier. ¹⁾ A côté de ceci il y a les publications qui dirigent l'attention surtout sur le mode d'application des principes du droit islamique dans un certain pays ²⁾. Les travaux de la deuxième catégorie nous mènent beaucoup plus près du domaine du „droit de l'Islam” et ils nous donnent la possibilité de nous former une idée de la façon dont les deux sphères de droit se pénètrent mutuellement.

C'est en effet seulement sous réserve que le droit islamique et le droit de l'Islam peuvent être considérés comme deux sphères distinctes. Le droit islamique est certainement un système idéal, qui, en tant que doctrine sur les obligations rituelles et sociales (nommée *pflichtenleer*, „doctrine des devoirs”, par Snouck Hurgronje) exprimée dans les catégories: obligatoire, recommandable, permis, blâmable et défendu, peut à peine réclamer d'être nommé un droit dans le sens moderne du mot. Ceci saute d'autant plus aux yeux lorsqu'on voit que ces prescriptions idéales ne trouvent depuis des siècles qu'une application restreinte dans la pratique, plus restreinte que ne le présume déjà la doctrine même en introduisant les trois catégories intermédiaires. Mais après tout, même les systèmes de droit moderne ont en eux un élément idéal, malgré l'absence de la prétention d'être un droit divin et immuable, que les docteurs de l'Islam ont avancée depuis les premiers siècles avec une ténacité traditionnelle toujours croissante. L'élément idéal est indispensable pour nous faire garder notre foi dans quelque forme de droit que ce soit; qu'il s'agisse du droit des gens moderne ou du droit dit positif sur les biens ou les obligations. Il n'en était pas autrement dans le droit romain.

Il est impossible pour tous ceux qui veulent étudier les relations des

¹⁾ E. Sachau, *Muhammedanisches Recht nach schafitischen Lehre*. Berlin, 1897. — I. Guidi et D. Santillana, *Il „Muhtasar” o Sommario del diritto malechita di Halil ibn Ishāq*, 2 vol., Milan 1918. — D. Santillana, *Istituzioni di diritto musulmano malicbita con riguardo anche al sistema schafitico I*, Rome 1926 (II, 1938). — S. Vesey-Fitzgerald, *Muhammadan Law. An Abridgment according to its various schools*. Oxford 1931. — J. Lopez Ortiz, *Derecho musulmán*. Barcelona, 1932. — G.-H. Bousquet, *Précis élémentaire de droit musulman (Malékite et Algérien)*. Alger-Paris 1934.

²⁾ M. Morand, *Introduction à l'étude du droit musulman algérien*. Alger 1921. A. Guiraud, *La justice chérifienne. Ses origines, son fonctionnement, son organisation future*. Paris 1930.

conceptions juridiques parmi les peuples musulmans et la pratique judiciaire, dans l'histoire et dans le présent, de ne pas se trouver placé à un certain moment devant des problèmes théoriques du genre indiqué ci-dessus. Aussi n'est-il pas étonnant de voir qu'on a commencé à se rendre compte de la vraie signification de l'imposant complexe de conceptions et prescriptions que nous appelons le droit islamique, dans le cadre de l'étude du droit dans son sens absolu, y compris les points de vue historique et dogmatique. De pareilles études ont été ébauchées depuis longtemps et c'étaient justement les tentatives de régulariser le droit islamique moyennant les conceptions dogmatiques du droit moderne, conceptions héritées en majeure partie du droit romain, qui avaient provoqué les protestations des islamologues et le jugement, quelquefois mal interprété, de Snouck Hurgronje, qu'un juriste dogmatique est incapable de faire des recherches de droit musulman. Ce droit a en effet un caractère si fortement irrationnel qu'un traitement trop dogmatique risquerait de le rendre ridicule ¹⁾.

Mais, pour les raisons expliquées ci-dessus, on a toujours senti le besoin d'approfondir la connaissance du droit islamique par une espèce de systématique qui fait mieux comprendre la structure de l'édifice du droit musulman, quelque bizarre que puisse paraître de premier abord son extérieur. Aussi les manuels de Sachau, Juynboll, Santillana et autres ont-ils déjà divisé la partie proprement juridique du *fiqh* d'après les matières traitées, en distinguant les grandes catégories du „droit de famille”, „droit matrimonial”, „droit de succession”, „droit de propriété et d'obligations”, „droit pénal”, „droit de procédure”. La codification du droit civil „islamique”, qui a été promulguée en Turquie entre les années 1869 et 1876 sous le nom de *Medjelle* n'avait pas fait autrement. Mais tandis que ces traitements de la matière avaient été plutôt inspirés par des considérations pratiques ou pédagogiques, le droit islamique a été dernièrement objet d'une étude dont le but est de faire ressortir le fonctionnement principal de ses parties composantes dans le but de le rendre plus accessible aux juristes, mais sans violer dans l'exposé son caractère pragmatique et casuistique. Cette étude est de la main de M. G. Bergsträsser, professeur à Munich, qu'une mort prématurée (le 16 août 1933) a arraché à

¹⁾ Le caractère pragmatique se montre entre autres par la division traditionnelle des chapitres dans les livres de *fiqh*. Que cette division n'est pas, du reste, tellement rigide qu'on ne pense souvent, a été démontré dernièrement dans une étude de M. W. Heffening, dans *Studien zur Geschichte und Kultur des Ostens*, publié par W. Heffening et W. Kirfel, Bonn 1935.

une brillante carrière d'orientaliste. Elle a été publiée, après la mort de l'auteur, par M. J. Schacht (dans la série des Manuels du Séminaire des Langues Orientales à Berlin, 1935) sous le titre de *Grundzüge des islamischen Rechtes* et elle contient un exposé des doctrines du droit Hanafite, l'école qui, jusqu'ici, avait été la moins étudiée par la science occidentale.

M. Bergsträsser a traité surtout ces parties-là du droit musulman que nous comprenons sous la dénomination de droit privé, dans des chapitres sur „les personnes”, „les choses”, „les obligations”, „la famille” et „les successions”; il y a en outre un chapitre sur le „droit pénal” et le „droit de procédure”. Cet arrangement a dans une grande mesure un caractère pragmatique et permet de traiter la matière judiciaire avec souplesse, sans vouloir la diviser rigoureusement d'après un système dogmatique. On y trouve aussi une base pratique pour résoudre la question de savoir ce que nous aurons à considérer comme „droit privé” par rapport au droit islamique, pour le besoin de la présente Revue. Comme le terme „droit privé” a reçu sa signification par le développement historique et politique des idées du droit moderne, il serait impossible de vouloir l'appliquer en principe au droit islamique. Le rôle de l'autorité gouvernementale dans ce droit est en effet tout autrement divisé; on n'a qu'à penser aux cas d'exécution pénale individuelle. Il n'aurait même pas de sens de vouloir grouper ensemble tous les éléments de ce droit où l'autorité recule ou n'agit que très modestement en présence des droits et actions des personnes.

L'auteur a réussi à grouper ensemble dans un chapitre préalable (*Rechtsgeschäftliche Grundbegriffe*) quelques principes de droit généraux, qui, sans être traités aussi principiellement par les livres de *fiqh*, et, malgré des déviations irrationnelles qui peuvent se produire dans tel cas matériel, peuvent être reconnus applicables à toutes les actions ayant des conséquences juridiques. Ce sont: 1) l'expression de l'intention (*nīya*), qui joue aussi un rôle important dans les obligations rituelles; 2) l'effet des clauses de condition et de terme; 3) la subrogation, où la différence entre les obligations rituelles et les actions juridiques se montre très marquée; 4) les conceptions „valable” et „nul”, qui, ainsi que l'a démontré M. Bergsträsser, peuvent se substituer souvent aux catégories typiques du *fiqh*: obligatoire, recommandable, etc.

Les deux derniers chapitres des *Grundzüge* traitent des limites de l'application et de l'autorité du droit islamique et de son caractère.

Les observations qu'on y trouve sont importantes pour le jugement des rapports entre le „droit islamique” et le „droit de l'Islam”, qui doit nous occuper ci-après. M. Bergsträsser met en évidence que les règles du *fiqh* même tiennent déjà compte de son caractère idéal, et tant que les catégories „recommandable” et „repréhensible” impliquent déjà que l'homme et la société humaine n'ont pas encore atteint la perfection idéale. Ce sont justement ces traits-là qui éloignent le droit islamique du domaine proprement juridique. Mais à côté de ceci il y a la question de l'application pratique. L'humanité est en effet encore beaucoup moins parfaite que ne le suppose la théorie du *fiqh*, et l'on sait qu'une grande partie de ses prescriptions, notamment celles qui se rapportent aux transactions commerciales, est toujours restée lettre morte. Il s'est formé dans les différentes parties du monde islamique un droit des transactions et du commerce où le droit coutumier a pris un rôle beaucoup plus prépondérant que celui que le *fiqh* lui eût jamais accordé. C'est tout au plus si les musulmans consciencieux tachent de garder l'apparence moyennant des transactions équivoques ou „ruses” (*hiyal*), que les docteurs de l'Islam ont envisagées déjà depuis des temps reculés et dont l'exposé a même fait naître une branche spéciale de la littérature du *fiqh*¹⁾. Tout en étant reconnu comme une Loi suprême et idéale — le contraire impliquerait une négation de la foi même — le droit musulman a donc toujours dépendu en ce qui concerne l'application pratique des règles de la mesure dans laquelle l'autorité de l'État et la conscience populaire ont été disposées à les mettre en vigueur; il n'y a pas de raison du reste de distinguer trop entre ces deux facteurs. Mais M. Bergsträsser a montré que, dans beaucoup de cas, il s'agit plutôt d'un développement supplétif à côté du *fiqh*, ce qui a eu lieu e. a. pour le règlement du droit de *wakf*. Sous le même point de vue peut être rangée l'institution d'une période de prescription pour les biens immobiliers, simplement par une défense aux juges de prendre connaissance des réclamations qui n'ont pas été soulevées pendant un certain nombre d'années²⁾.

La question de l'autorité et de l'application du „droit islamique” dans les différents pays islamiques est de nature trop compliquée pour être traitée en quelques pages. Aussi M. Bergsträsser n'a-t-il voulu que donner quelques indications sur la façon dont les problèmes qui s'y rattachent doivent être abordés. Il a en outre plus particulièrement le

¹⁾ J. Schacht, *Die arabische hiyal-Literatur*, dans *Der Islam*, XV (1926).

²⁾ C. Snouck Hurgronje, *Iets over verjaring in het Mohammedaansche Recht*, dans *Verspreide Geschriften*, II 327.

point de vue de l'étudiant du *fiqh*. On peut se placer encore au point de vue de l'historien du droit en général, qui étudie de manière comparative l'effet de la conception d'un „droit divin” ou „canonique” sur les idées et les pratiques juridiques d'une certaine communauté humaine. M. Bergsträsser lui-même a déjà comparé, dans son introduction, le droit islamique avec le droit judaïque et le droit canonique chrétien.

Après les observations précédentes sur l'état actuel des études de “droit islamique” nous voulons nous demander maintenant quelle est la tâche que peuvent se poser les présentes *Archives* dans l'étude de l'histoire du droit des peuples musulmans.

D'abord il y a lieu d'étudier l'histoire du développement du *fiqh* même, surtout en ce qui concerne sa genèse sur la base des coutumes juridiques des villes arabes au commencement de l'Islam et dans les centres militaires de la Syrie et de l'Irak pendant le premier siècle. C'est la période de transition d'un droit pratique, c.-à-d. d'un ensemble de règles de droit coutumier dans divers centres, à un droit idéal, qui a subi ensuite de plus en plus l'influence harmonisante de la catholicité de l'Islam. M. Bergsträsser a donné, dans le chapitre introductif des *Grundzüge*, une esquisse qui explique plus nettement qu'on ne l'a fait jusqu'ici comment, au temps du califat Omayyade, les premiers savants de l'Islam (les *fuqahā* ou *‘ulamā*) en sont venus à se détourner et se désintéresser de la pratique impie des gouvernants de leur époque pour se vouer à la description de plus en plus théorique de la “Loi Divine”, tout en gardant assez d'autorité religieuse pour que seules leurs doctrines et leurs écrits fussent considérées comme ayant autorité pour les esprits de la communauté islamique. A côté de ceci il reste encore à étudier de quels centres était originaire le droit coutumier qui faisait dès la première époque l'objet de la description des docteurs, naturellement après les commandements donnés déjà dans le Koran et les institutions qui remontaient directement au Prophète. M. Bergsträsser lui-même avait déjà indiqué auparavant le droit coutumier des villes arabes comme source principale du plus ancien droit islamique¹). Seulement les sources qui permettent des investigations plus pénétrantes n'ont pas encore été épuisées. Il faut espérer particulièrement que la grande Concordance de la Tradition Sainte (*Hadīth*), en voie de publication par M. Wensinck à Leiden, contient,

¹) G. Bergsträsser, *Anfänge und Character des juristischen Denkens im Islam*, dans *Der Islam* XIV (1925).

à côté de la plus ancienne littérature juridique, des données pour tracer l'image de la genèse du droit islamique. Ces études permettront peut-être en même temps d'entrevoir comment des institutions juridiques étrangères, notamment celles appartenant au droit romain, peuvent avoir eu de l'influence.

Deuxièmement c'est le développement de la théorie du droit selon les docteurs légistes de l'Islam qui devra attirer l'attention de l'historien du droit. On sait que cette théorie a été formée et formulée seulement après que les premiers recueils de règles de *fiqh* avaient été composés et qu'elle a donné naissance à la science des „racines de la science juridique” (*uṣūl al-fiqh*). L'Imam al Shāfi'ī (mort en 820) est considéré de commun accord comme le fondateur de cette science, mais l'étude de ses vues et méthodes n'est qu'à son début. En 1934 une thèse de doctorat de l'Université de Leyde a donné une analyse du *Kitāb al-Risāla*¹⁾, qui fait partie du grand corpus des écrits d'al-Shāfi'ī intitulé *Kitāb al-Umm*. Ce qui rend plus intéressant le *Kitāb al-Risāla* c'est qu'il traite la matière souvent sous forme de polémique, ce qui permet d'entrevoir l'historique de la pensée juridique aux premiers siècles de l'Islam. Une exploration plus poussée des autres écrits d'al-Shāfi'ī et de ses commentateurs pourra donner des connaissances plus intimes non seulement sur la formation des principes si typiquement islamiques de l'établissement formel de règles juridiques: le Koran, la Sunna du Prophète, le consensus (*idjmā'*) de la communauté, la pensée logique (*ḥikm*) — mais aussi sur les manifestations d'une dogmatique essentiellement juridique qui ne manquent pas de se montrer au cours du traitement des divers sujets. Il sera ainsi possible également de constater l'influence d'autres systèmes de droit. Pour les temps postérieurs à al-Shāfi'ī l'immobilisation de plus en plus rigoureuse du système du *fiqh* rend toujours moindre l'occasion pour les juristes d'exprimer des vues de principe. Toujours est-il que certaines autorités des siècles postérieurs, et justement parmi les adhérents les plus rigoureux de la tradition, comme Ibn Taimiyya (mort en 1328), montrent une liberté étonnante vis-à-vis de l'interprétation de certains commandements de la Loi Divine²⁾.

Nous passons au troisième objet d'études, l'étude de l'histoire du „droit de l'Islam”, de la pratique juridique. Ses manifestations sont

¹⁾ L. J. Graf, *Al-Shāfi'ī's verhandeling over de „wortelen van den Fiqh”*. Leiden 1934.

²⁾ Voir les opinions d'Ibn Taimiyya sur l'application des punitions dites *ḥadd* et *ta'zīr* dans la thèse de M. J. P. M. Mensing, *De bepaalde straffen in het Hanbalietische recht*, Leiden 1936, 83 ss.

trop nombreuses et s'étendent sur un territoire trop vaste pour permettre de les réunir jamais dans quelque système. Leur étude fait partie de la description des mœurs et institutions des différents peuples islamiques, et les ouvrages et traités consacrés à ce sujet sont parmi les sources qu'on doit consulter. Les sources littéraires musulmanes fournissent naturellement aussi maintes données sur la pratique du droit, mais l'importance primaire attachée à la Loi Sainte a eu la conséquence qu'on s'est donné à tout temps peu de peine pour décrire expressément des procédés juridiques qui n'étaient pas conformes à ce qu'enseignait la science des juristes. Dans un certain sens pourtant même la littérature juridique est très riche en données pour arriver à la connaissance du droit appliqué, ainsi que nous allons voir, mais il faut s'en approcher par des détours.

Les différentes catégories de sources pour l'histoire du droit de l'Islam peuvent être classées comme suit :

a) Les sources du droit islamique même. Il est en effet indispensable que celui qui étudie le droit des peuples musulmans ait une juste idée de l'influence que la Loi Divine exerce sur les esprits. Ceux qui ne peuvent pas consulter directement les manuels arabes du *fiqh* peuvent consulter maintenant une excellente série de traductions ou de reproductions de leur contenu ¹⁾.

b) Cette même littérature peut fournir également des données précieuses pour l'histoire du droit appliqué par une étude attentive des cas traités par les docteurs. Comme cependant la casuistique occupe une place dominante dans leurs méthodes on ne pourra exploiter ces sources qu'avec une extrême prudence. Une plus grande importance revient en tout cas à la branche de la littérature du *fiqh* qui s'occupe des *hiyal*, des „ruses”, consistant en des transactions fictives pour obtenir un résultat auquel on n'aurait pas pu atteindre par voie directe sans commettre des actes illégaux. Cette littérature des *hiyal*, qui s'est développée surtout dans l'école Hanafite, est devenue mieux connue par les études de M. J. Schacht, qui a aussi publié quelques-uns de ces traités. Ces ruses ont été inventées en premier lieu pour satisfaire au besoin de la pratique, qui éprouvait de plus en plus les commandements de la Loi Divine comme incompatibles avec la vie. Les gens qui inventaient et pratiquaient les *hiyal* méconnaissaient, comme l'a bien remarqué M. Bergsträsser, le caractère idéal du droit islamique et lui donnaient une application qui allait à l'encontre de son esprit, tout

¹⁾ Voir la note 1 de la page 65.

en élargissant en même temps le domaine de son application. Comme le but de ces ruses était généralement d'atteindre un résultat auquel ni l'autorité de l'état, ni le sentiment de droit de la société ne s'opposaient — et c'est sous ce point de vue que les *hiyal* se distinguent des „fraudes à la loi” en droit moderne — cette littérature constitue une source pour la connaissance de la pratique judiciaire. Néanmoins la littérature des *hiyal*, elle-aussi, a un large élément casuistique, en construisant des cas dont il est extrêmement improbable qu'ils se soient jamais produits dans la vie réelle. A côté de cette littérature on peut placer celle qui s'occupe des *furūḡ*, c.-à-d. l'investigation des figures juridiques reposant sur des faits très semblables entre eux mais ayant des effets juridiques très différents.

Enfin les traductions et les manuels non-musulmans modernes contiennent le plus souvent des notices sur le mode d'application du droit islamique dans un territoire spécial en vue duquel ce travail a été composé plus particulièrement. Mais ceci ne touche qu'en partie l'histoire du droit.

c) Parmi les travaux des juristes musulmans ce sont les recueils de *fatwā* qui nous rapprochent encore davantage de la pratique du droit. Un *fatwā* repose le plus souvent sur un problème juridique qui s'est posé dans la pratique. Aussi certains *fatwā* sont-ils devenus célèbres dans la littérature et ont-ils contribué en une certaine mesure à la formation de droit nouveau. Mais dans la plupart des cas c'est plutôt le problème posé et non la réponse dogmatique qui importe pour l'histoire du droit. De ce point de vue les recueils de *fatwā* ont été encore peu utilisés¹⁾. Or, tandis que l'investigation des *fatwā* a ses difficultés particulières, il existe une autre catégorie de recueils, qui nous mènent pour ainsi dire en pleine pratique judiciaire. Ce sont les recueils de formulaires, nommés *shurūḡ*.

d) Les règles juridiques qui, dans plusieurs états musulmans, ont été promulguées par l'autorité. Elles portent le plus souvent le nom de *kānūn* et appartiennent, du point de vue du droit musulman, à la catégorie de la „coutume” (*urf*, *āda*), qui, en certains cas, est admise à compléter les institutions du *fiqh*. Telle a été la fonction des célèbres *kānūn-nāme* de l'Empire Ottoman du xve et du xvie siècle. Ceux-ci, cependant, n'entrent que pour peu dans le terrain du „droit privé”, parce que, dans ce domaine, ils s'occupent seulement de quelques

¹⁾ P. Horster, *Zur Anwendung des islamischen Rechts im 16. Jb. Die „juristischen Darlegungen” des Scheich ūl-Islām Ebū Su'ūd*, Stuttgart 1935.

modifications du droit de propriété. D'autre part les instructions données aux juges par le gouvernement qui les institue peuvent influencer la pratique du droit. C'est seulement depuis des temps relativement modernes que des actes du pouvoir exécutif et législatif dans des états musulmans nous sont devenus accessibles sous forme de décrets et de lois. Pour les temps plus anciens il faut les chercher dans les sources historiques, bien qu'on puisse être sûr que ces règlements généraux n'ont jamais entièrement manqué. Seulement c'était justement l'autorité indisputée — en théorie — du droit islamique doctrinaire qui repoussait au second plan toute activité législative et qui l'empêchait continuellement de créer une tradition judiciaire. C'est un fait significatif que l'épigraphie pourtant si riche de l'Islam ne montre aucune trace de ce genre d'édits législatifs qui sont propres à la civilisation des peuples orientaux plus anciens.

Au cours du xix^e siècle la civilisation occidentale a commencé à influencer profondément l'administration dans les pays musulmans. Autant les états indépendents, comme surtout l'Empire Ottoman, que les gouvernements coloniaux en pays musulmans ont voulu régulariser par une législation la pratique judiciaire et en conséquence le droit appliqué même. Du point de vue de la "Loi Divine" c'étaient des innovations et des infractions, et ces mesures ont causé en effet beaucoup d'embrouillement et d'incertitude. Pour l'historien du droit ces changements présentent un tableau très varié et plein d'intérêt, mais en ce domaine encore si actuel il devra se contenter pour le moment de recueillir des données et de constater des changements, sans vouloir en tirer des conclusions générales.

e) Les sources qui restent sont toutes de nature non-juridique. Il s'agit surtout de la riche littérature historique des peuples de l'Islam. Elle contient encore un trésor de données précieuses pour la connaissance des institutions juridiques dans les pays musulmans aux siècles passés. Plusieurs orientalistes sont déjà parvenus à des résultats appréciables ¹⁾, mais la récolte pourra être augmentée considérablement. Surtout si l'on en combine l'étude avec les descriptions des pays orientaux par des voyageurs occidentaux depuis la fin du Moyen-Age. Il ne faudra pas négliger non plus les rapports sur les coutumes des peuples qui, tout en vivant en territoire musulman ont gardé en majorité leurs traditions préislamiques; ce sont surtout des peuplades nomades et sémi-nomades, entre autres beaucoup de tribus dans la

¹⁾ Voir p. e. A. Mez, *Die Renaissance des Islams*, Heidelberg 1922.

péninsule arabe même. Par le fait que ce sont extérieurement de musulmans, ils doivent reconnaître l'autorité de la „Loi Sacrée”, mais celle-ci n'a que très peu d'effet sur la vie sociale. Déjà au Moyen-Age les auteurs de traités géographiques arabes acceptent comme un fait l'Islam „faible” de ces primitifs et ils sont assez impartiaux pour nous fournir de temps en temps quelques détails sur leurs coutumes et institutions.

L'étude de l'histoire du droit chez les peuples musulmans selon les lignes tracées ci-dessus a donc beaucoup à espérer de la collaboration des juristes et des orientalistes.

SCIENCE IN ISLAMIC CIVILIZATION*)

Islamic civilization covers a very large geographical area, extending from India to Spain and from Nubia as far as the Caucasus. Its golden age lasted for at least four centuries, from A.D. 800 till 1200. For its study we have to rely on the literary sources in ancient manuscripts, and for its better understanding we have a precious guide in the cultural attitude of the Muhammadan peoples of the present time, while the legacy which has passed from Islamic thought into our own cultural forms may be able to lead us to an adequate appreciation of the achievements of Islamic scholars.

Unfortunately the conditions indicated above are far from having been fully realized by modern research, however much our knowledge of these things has been advanced by the work of orientalists of past and present generations. Consequently an inquiry into the birth and growth of scientific activity within Islamic civilization must necessarily rely upon an intuitive construction, which no doubt will have to be revised in future.

Students of Muhammadan civilization have during the last century grown accustomed to a mode of research which implies the tracing back of any custom, institution, or concept belonging to that large cultural whole, to similar phenomena found in the more or less universal civilizations that, in East and West, have preceded the coming into existence of the Islamic empire.

So we have learned to consider the classic Islamic language, the first political and military consolidation of Islam, some features of the Muhammadan worship, as a legacy from the pre-Muhammadan Arabs. We know that a number of religious features are due to the influence of Eastern Christendom and of Jewish circles. We can trace back governmental institutions and several literary forms of expression to the civilization of Sassanid Persia. Iranian origin can likewise be demonstrated in many current popular beliefs, which on the other hand have drawn on similar traditions among the Egyptians, the Greeks and the Indians. Finally, and on this subject we shall have to

*) This essay was written in 1939 for a general work on the history of science, planned in England, which was to be called "Survey of Science". The war frustrated the plans and the book was never published. The reader will realize that the essay would have had its proper place in a larger context.

say much more, the higher culture of the mind in Islamic civilization is manifestly rooted in the scientific achievements of Hellenism which they transmitted. This transmission took place either by direct contact with what was left of Hellenistic tradition, or by the way of Syrian-Christian and Iranian centres of hellenized culture.

And yet, valuable as this retrospective knowledge may be, it never can be more than an auxiliary element in our researches if we wish to reach an understanding of the richly developed cultural currents that have come to constitute the whole of the Islamic attitude of mind. The word "Islam" has a cultural value that is not merely the resultant of the different components enumerated above. It is not entirely unnecessary to draw attention to this fact, which for students of history and religion seems natural enough. There has been, indeed, a time when orientalists — which at that time meant merely students of the literary products of one or more oriental peoples — were extracting from their sources a quantity of interesting and curious information. During the first phase of their activity this was destined to reinforce directly the new cultural arsenal they were bringing together, while during the second phase it was to constitute the less practical aim of humanistic occupations. All the time there was probably the feeling that, as far as Muhammadan peoples were concerned, there was a higher unity in these manifestations, but the synthetical understanding of what was really at work in the first remote times of Islam and of all that came later has only begun to dawn since the last sixty years. Still we are very far from a correct appraisal of the many facts at their relative value within the history and the system of Islamic civilization, and, to be quite sincere, we have not yet the means to ascertain since what time exactly Islamic culture has been a living reality which we may use as a system of coordinates in our survey of human scientific activity.

One of the means by which the modern "science of Islam" has contrived to penetrate deeper into the structure of Muhammadan institutions and ideas has been the study of contemporaneous Islamic communities. This study has revealed the central place occupied by religious and cultural tradition in the minds and the social lives of modern Muhammadans, as it manifests itself either in a highly conservative conformity to ancient forms and ways of thinking, or in a conscious reaction to modern conditions by bringing to life again centuries-old thoughts and views or, in very recent times, even by denouncing the tenets of Islam with a vehemence that only proves

the tight grip of those tenets. We are justified, to a certain degree, in assuming the existence of similar conditions in former centuries, but for that period evidence becomes much scarcer, as the literary sources never can give an adequate image of Muhammadan society in the time of their composition. The difficulties grow more serious as we approach the centuries in which lived the men whose scientific works have become known in Medieval Europe as a revelation of knowledge. Those centuries are the IXth, Xth, XIth, and XIIth of our era and, if compared with the present state of things in the Islamic world, we can hardly close our eyes to the fact that the leading minds in that world were animated at that time with a mentality which may be designated with the modern word "research", a mentality which, though not totally absent from modern Islam, does not belong to its outstanding characteristics.

Still we know that, by A.D. 900, the forms of Koranic interpretation were already fixed, as was the interpretation of the Tradition (*Hadith*) about the Prophet, both of which, since that age, have been at the base of social and personal life in the Muhammadan societies up to the present day. We may only surmise that those forms had at that time a more living content, that the bitter strife from which they had emerged in a generally accepted form still agitated the minds of the intellectual leaders of the Muhammadan community.

But was there already in those times a "cultural" unity of Islam, within which we may assign their places to the eminent scholars who were working in the field of science? Or did they merely continue the work of ancient Greek and Hellenistic scholars with whose achievements they had become occasionally acquainted by translations?

There are theories that make the establishment of Islam as a religion and as a type of civilization begin rather late, not before the beginning of the Abbasid epoch (c. 750), namely at the time when influences from other and older civilizations begin to manifest themselves for us in the literary sources. These theories explain the miraculous expansion of the Arabs over Syria, Mesopotamia, Persia and Northern Africa within fifty years after the prophet's death by economic and climatological reasons, which at last drove the Arab tribes to an elementary outburst beyond their original boundaries. The defenders of these views reject the formerly popular and suggestive opinion that the Arabs deliberately set out for the conquest of the world with the Koran in one hand and the sword in the other.

I think we had better fall back on the old metaphor, which is only

half a metaphor, for the sword was certainly in their hand, while the Koran was in their heart. Probably long before real Koran copies "between two cover leaves" existed, thousands of Arabs knew by heart large portions of what Allah had revealed to them by the tongue of their Prophet. It is impossible that a non-Muslim of our own times, who reads in a translation the often incoherent and even obscure passages of the Koran, should feel the immense emotion of wonder and veneration that inspired the first generations of Islam, when they heard God's word in their own Arabic language. For them the "Book" was a wonder, as it is still considered to be in Muhammadan theology. No investigations into the possible way in which this or that point of knowledge may have come to Muhammad can alter that magic property of the Koran. The Arabs had not known any other literature but their own poetry. This, however, had prepared them to recognize in Allah's Arabic words a literary achievement that was quite out of the common. They certainly did not grasp the meaning of everything intellectually, but it gave them the backing they needed to do great things and to think great things. It made them believers (*mu'minūn*) in God's oneness and in the mission of Muhammad, and it made them submissive (*muslimūn*) to God's commands. It tore them away from an unimaginative and hard life and gave them the force to create a new world, materially and spiritually.

The words and the conceptions of the Koran indeed pervade the literary and other manifestations of Muhammadan cultural life until our own time. The entire Muhammadan learned literature produced in the first centuries of Islam is not only written in the language of the Koran, but also on closer investigation reveals the influence of expressions and ideas that come directly from the revelation. In every period of Muhammadan history we see how the leaders of the Islamic communities fall back on the Koran to strengthen their reformatory ambition; in our own times the Egyptian mufti Muhammad 'Abduh did not appeal in vain to the Book, when he inaugurated a modernistic movement in Islam. This attitude towards the Koran must have existed from the very beginning of Islam, in spite of the (naturally biased) authority of St. John of Damascus, who, around 710 A.D., spoke of Islam as an obscure Christian sect with rather curious heterodox tenets. Already as early as the year 656, when the first Islamic civil war had broken out between caliph 'Ali and the future caliph Mu'āwiyā, the Koran had been invoked with success by the latter's party to obtain a pause in the hostilities

and to leave the decision to God's word. As events proved, the Koran was not an instrument with which actual high-running political passions could be appeased, but this did not in any way weaken the sway it had over the hearts and the minds of the sincere Moslems.

Now there is no doubt whatever about Islam having arisen in surroundings imbued with Christian and Jewish influences. Without the preceding centuries of Christianity the Koran never could have come into existence. But the Prophet Muhammad and the Christian elements in his environment had never read the actual Gospel; they only knew the Gospel and the Thora as Books revealed to other peoples. There was no Arabic translation of the Gospels; there existed at the most the beginning of an Arabic liturgy for Christian communities in Arabia.

Thus, Christian and Jewish traditions in Muhammad's surroundings were not strong enough to reduce Islam to a mere oppositional religious movement. The attitude of the first Muhammadans was therefore a much freer one than it would have been otherwise. They adopted from Christianity what appealed to their religious and social needs — which were quite different from those prevailing in the Hellenistic countries where Christianity was preached for the first time — and they deliberately rejected a part of the Christian tenets and institutions they had learnt to know, amongst others the doctrine of the Trinity and the institution of monkhood. It is this new and free religious orientation, combined with the rapid spreading of the early Muslims as masters over a large part of the known world, that explains why the rise of Islam marks a new epoch in the history of civilization, symbolized in a most eloquent way by the introduction of the Muhammadan calendar, as early as the caliphate of 'Umar. The beginning of the Islamic era is indeed much more sharply marked than the beginning of the Christian era itself.

I want to stress the free attitude of early Islam towards the traditional views and institutions of the time. It is true that certain detailed prescriptions must be ascribed to a conscious opposition against some Christian, Jewish and pagan customs in Muhammad's surroundings, such as the establishment of Friday as the day of congregational worship in opposition to the Saturday of the Jews. It is also true that, afterwards, when Islamic theology took a more definite shape, the Muhammadan theologians had to reexamine the same theological problems that had stirred the minds of the Christian fathers and the monks, and here the Muslim doctors had much to learn from their

predecessors. But for a long time their attitude remained far less prejudiced than that of the religious leaders of Christendom, already bowed down under a burden of tradition in the cells of the monasteries of Syria, Egypt and the Byzantine dominions. It is only about three centuries after the beginning of Islam that the Islamic attitude towards life begins to look upon the paths trodden out by former generations as the only paths permitted by God, a development that has so often been mistaken as a proof of the inconsistency of Islam with progress in general.

This does not at all mean that the early Muslims were free from any preconceived ideology. Their simple and realistic views on life were certainly mixed with age-old beliefs about the structure of the world they knew, about the mutual relations of men, individuals and peoples, beliefs that we still find reflected in the Koran. Some of them were strengthened by Muhammad's preaching, such as the belief that God has in the course of centuries sent his apostles and prophets each to a special people, to bring them a written or a spoken revelation in a language of their own. The Koran changed this view in so far as in Islam Muhammad is considered to be the last of the prophets. Also the belief in a last judgment had been a latent feeling, which was strongly accentuated during the first period of Muhammad's preaching, while likewise the feeling of dependence on divine guidance, originating in a fatalistic attitude of the mind, was favoured and sublimated by the revelation brought by the Apostle of God. Some of the ancient tenets were modified, notably those regarding social relations existing in Arabia, but it was only the expansion of the Muslims beyond Arabia which made those new prescriptions and prohibitions bearable and which made Islamic ideology fit to serve as a foundation for a new independent religion and civilization.

All cultural manifestations in Islam can only be understood in connection with the mental attitude indicated — which was also that of a large part of the populations of the newly conquered regions, Syria, Mesopotamia and Egypt — and in connection with the undisputed authority of the Koran, and soon in a but slightly lesser degree of the Prophet and his sayings and actions. The veneration for traditional authorities itself is already one of the characteristics of early Islam. It reveals itself notably in the form of transmission of traditions by the first Muhammadan generations, and also later in the tendency, which pervades the whole of Muhammadan literature, of corroborating the value of all statements by invoking early Islamic or

pre-Islamic authorities. We must admit, however, that this regular invoking of ancient real or imaginary authorities became in many cases a purely formal matter, often giving the wrong impression that the Islamic system has always been incapable of adopting new elements. The fact remains that the general trend of Islamic civilization has always been to rely upon the authority of former generations, behind which stands the Prophet Muhammad, behind whom, as an ultimate and final resort, there is God's word as revealed in the Koran.

It was necessary to lay stress on the value attributed to authority in the Islamic attitude of mind in order to explain its necessary corollary, namely the free attitude towards the civilization of the surrounding peoples. The early Muslims could take over what suited their religious and intellectual needs and they could reject what did not suit them. They conquered the world while already in possession of a "Weltanschauung", which prevented them from being finally submerged in one of the different types of civilization already existing.

One legacy of ancient times has maintained itself with a curious persistency in all phases of higher intellectual development, I mean the belief in magic (*sīhr*). Now magic is in many respects a prototype of science, but as scientific interest develops magical ideas are gradually abandoned. This has also been the case in Islam, but here it seems that magic explanations never entirely ceased to be taken into account. The existence of such a thing as magic is expressly recognised — although as something objectionable — in the Koran and the Hadith, and great thinkers of later times as al-Ghazālī and Ibn Khaldūn have been at pains to distinguish different kinds of magic; it is true, however, that they were able to denounce the greater part of magical practices as humbug. Still, magic is occasionally styled a science in later times, and so the belief in it remains one of the imponderable elements in higher Islamic civilization.

The achievements of the material civilization prevailing in the VIth century in the Byzantine and Sassanid empires were perfectly well known to the inhabitants of Mecca and other towns in Arabia. These people were leading a provincial life, but the wealthy amongst them certainly knew how to surround themselves with all the comforts of the time. The caravans of the Meccan merchants themselves were conveying to the Byzantine dominions the South-Arabian aromatics and other valuable wares belonging to the requisites of the refined culture of the important world centers of the time. This trade was mainly directed towards the Byzantine empire and used the Byzantine

currency. But what chiefly determined the more common conditions of life in Arabia was the reciprocal relations in which the townsfolk lived with the nomad inhabitants of the peninsula, the Bedouins or plain-dwellers. The latter constituted the great majority, but both groups were dependent on each other economically and socially. The Bedouins brought the products of their cattle-breeding to the markets in the towns and had all kinds of commercial intercourse with each other and with the townspeople on regular market-places at special times of the year. They further provided different kinds of textiles from their tribal industries, and certain tribes were reputed, though not honoured, for their skill as blacksmiths, this kind of craftsmanship being generally associated with mysterious disreputable knowledge. Furthermore it was the Bedouins who, with their camels, provided the means of conveyance to the caravans of the town merchants and who, as the real masters of the roads, had to grant security to the travellers. The conditions under which they were ready to allow free passage through their territory made them in a way dependent on the townspeople for a greater amount of riches and comfort than their precarious and lawless existence in the plains could afford them. It was these same Bedouins who, as settlers in the newly conquered dominions, helped for more than a century to maintain the military power of Islam.

The symbiosis of a settled urban and rural population with nomads has always been typical for the social structure of nearly all the populations in the countries where Islam spread during the Middle Ages. The stability of the power of the early Islamic conquerors was no doubt a consequence of the fact that the Arabs found in the conquered countries geographical conditions enabling them to continue their life under much the same conditions as they were accustomed to. Irak, Syria, Mesopotamia, North Africa were rich in desert plains, and the plateaux of Persia and Spain likewise presented the geographical features of larger or smaller oases separated by large stretches of steppe-like plains. The lowlands of Western Turkestan again were rich in pasture-grounds for the Arab warriors. Many of those regions were already populated by nomadic peoples, whose islamization was no doubt favoured by the likeness of their mode of life to that of the Arabs. Nevertheless they adopted Islam in a form suited to their own peculiar taste; this is true as well for the Berbers as for the Iranian nomads and the Turks.

The interdependence of settled and nomadic populations underlies the development of cultural life in Islam, although it can hardly be

said to have directly determined the growth of an intellectual Muhammadan tradition. It did determine, however, in a general way the direction of what we may call public interest. It is at the basis of the faculty for geographical orientation in unknown regions, mainly by observing the constellations, many of which have ancient Arabic names of their own. In the IXth century Islamic astronomers profited by the desert plains of Mesopotamia and Syria to effect astronomical observations and to check the results of Greek science. On the other hand the half-nomadic origin explains the lack of familiarity with the sea and with maritime matters in general. It explains the weakness of all Muhammadan peoples of the Near East in naval warfare. Further the fact that the use of chariots was practically unknown in Arabia may have retarded some developments of mechanical skill in Islamic civilization. Throughout the history of Muhammadan civilization the survival of features of Arab provincialism is undeniable.

The Arabs were not very well conversant with the two ancient half-magical arts that everywhere give the first impulse to scientific research, namely astrology and medicine. These arts generally flourish at the courts of princes, and for the first time gained importance in Islam after the dynasty of the Umayyads had been established. As appears from the Hadith, Muhammad knew astrology mainly as an art practised in Syria, but although he showed aversion for the "science of the stars", he allowed its use for geographical determinations, notably the fixing of the direction of Mecca for the Islamic worshippers. The Hadith also shows up the primitiveness of surgery and other medical practices in Arabia.

It is a much discussed question whether the aversion for pictorial representations as witnessed in Islam is to be attributed to a special disposition of the pre-Islamic Arabs. It is certain that Arabia never was the scene of plastic arts. The aversion for the latter is also found, however, among other ancient oriental peoples, as the Hebrews, and may proceed from very ancient religious ethics. The prohibition of pictures of living beings is, however, only feebly supported by the legal texts and has mainly been worked out by their commentators. The fact remains that picture painting and plastic sculpture only developed rather late in Islamic countries, although they were never totally absent. Islam, on the other hand, soon indulged in the architectural and ornamental beauty of mosques and palaces, as these buildings began to take on a splendour and an importance that never could have been attained in ancient Arabia. Nor has the aversion of the Islamic

doctors for picture painting withheld the mathematicians from illustrating their books with geometrical figures, or the geographers from drawing maps. So there is perhaps something in the view that the preference shown in early Islam for more abstract linear shapes in architecture, decoration and other arts goes back to an iconophobic disposition of the Arabs. It is at any rate an indisputable fact that the latter were much better disposed towards the cultivation of the impressive possibilities of their language.

The language of a people has justly been considered by several philologists as forming a part of its material culture, as far as it provides the material forms that serve as a means of expressing feelings and thoughts and of conveying them to others. Actually, this very function assigns to language a place among the features of mental culture. The same reasoning applies to script. So when in our survey we pass from the material to the mental culture of the human community where Islam arose, we have to discuss the Arabic language and script. As is well known, both have been of immense importance in the spreading of Islam itself and in the development of the specific Muhammadan culture. This can be proved i.a. by the occurrence of many Arabic words in the languages of the Islamized peoples and by the latter's adoption of the Arabic alphabet. But next to the expansion of the Arabs, the Arabic language owes its status as one of the world's principal languages of civilization to its own intrinsic merits.

In Muhammad's time the language of the Arabs had already been cultivated for centuries and there existed an ancient and very vital poetic tradition among the Arabic tribes. They had developed a vocabulary and a syntactic apparatus more refined than those of any of the Semitic languages, though Arabic perhaps somewhat lacked the means of expressing higher psychic emotions. Nevertheless, this language was not an entirely independent product of the Arabs, any more than the civilization of which it constituted so prominent a part. It had undergone, and was undergoing, the influence of other and more highly developed cultural centres beyond Arabia proper.

The chief cultural connections of the Hijaz, the leading Arabic centre of Muhammad's time, were with Syria. From Syria had also come most of the knowledge about Christianity. The type of civilization that had prevailed in the Arabic buffer states of the Ghassanids and the Lakhmids on the N.W. and N.E. frontiers of the peninsula had been Syrian. We should be going too far, however, if we adopted the thesis, advanced not long ago, that Islamic civilization is

essentially the continuation of Syrian civilization. Nevertheless the fertilizing influence of Syrian scientific tradition in later times is certainly a continuation of the former Syrian cultural influence.

The influence of the language of the Christian Syrians on Arabic in Muhammad's time is undeniable. This influence is very clear in the Koran, where many words denoting religious ideas and institutions are of Syriac origin; a considerable number of these words later became typical religious expressions in Islam. The language of the Koran shows many more traces of this influence than the poetic language; this also accounts for the Koran's being so totally different from what the Arabs were accustomed to. Moreover the Koran possessed an emotional note, notably in the older, Meccan, *sūras*, that was absent from poetry; the Koran itself denounces the poets as possessed by demons. The Koran therefore constitutes a highly important enrichment of the Arabic language and this, too, may help to explain the miraculous character attributed to it. The literary influence of the Book has indeed been immense in later literature, as was that of poetry, which likewise continued to flourish within and without Arabia. Both influences are at the root of the later literary and scientific language.

The Arabs had a marked sense for the keeping up of oral literary tradition. They not only committed to memory the Koranic revelations, but also the sayings of the Prophet and the reports about the Prophet's exemplary actions in all kinds of circumstances. These sayings and reports were transmitted by persons belonging to Muhammad's personal surroundings to other contemporaries; from them these traditions were transmitted to the following generation and this generation again handed down the acquired knowledge to their successors, while in the meantime the quantity of traditions was rapidly increasing. The whole of this mass of traditions has come to be known in later times as "*Ḥadīth*" or Sacred Tradition, and has become an indisputed authority in matters of Islamic thought and conduct of life, second only to the Koran.

The persons who transmitted the Koranic and Traditional texts were in the beginning the same men that occupied a leading position in the first Arab armies. Therefore they were found, not only in Medina and Mecca, but also in the big military centres that were founded under 'Umar (died 644) and 'Uthmān (died 655) in the newly conquered countries, notably the towns of Baṣra and Kūfa in Irak, and al-Fuṣṭāṭ in Egypt, and somewhat later in different places in Persia,

notably Merw in Khorāsān. This ensured a very wide range to the influence of Islamic authority over the original and converted Muslims all over the empire. The bearers of that traditional knowledge were the living factor in the propagation of the new faith. It is from their ranks that in the course of time came forth the spiritual guides of the Muhammadan communities, namely the theologians and the doctors of law. But to this same social category the later Islamic scholars also came to belong — and this is of extreme importance for our present purposes. The bearers and propagators of the religious tradition were, after the Islamic concept, bearers of *‘Ilm*, that is of “knowledge” or “science”. All that was worth knowing was known by these *‘Ulamā*, that is by the “learned”, the “doctors” or the “scholars”. These were the spiritual leaders of the Muslims and their authority was canonized by the Prophet’s saying that “the learned are the heirs of the prophets”.

This origin of the social class of the “learned” in Islam determined its development in later times. Firstly it made the ranks of the learned accessible to Muslims of all categories and races. Arabs as well as converts who had taken the trouble to learn Arabic acquired “knowledge” by sitting at the feet of their elder contemporaries. In this way the best minds of the conquered peoples could at an early date be incorporated into the ranks of the spiritual guides of the community. This process lasted long enough to spread a uniform layer of “learned” culture all over the ancient Muslim world. Secondly it connected all scientific activity of later times with the religious tradition. The consequence was a development of learning much after the scholastic pattern of the European Middle Ages, where, too, there was no conflict between religion and science. Science is bound up with religious doctrine. In this connection use was made of an old Oriental adage, canonized by being incorporated in the Hadith, saying that a man should abstain from occupying himself with what does not concern him. It was only in later times that a conflict arose in Islam between “science” and “philosophy” (*falsafa*). Thirdly there was from the beginning a strong pedagogical element in the Muhammadan occupation with learning. The acquisition of knowledge was in the first place a compliance with a religious command, but at the same time it had to serve the transmission of knowledge to others, and the complete fulfilment of the divine command of “exhorting to good and admonishing against evil”. So the scholar was at the same time a teacher, a “doctor”, and his school was that

original centre of political and religious life in Islam, the Mosque.

The "learning" handed down by the Islamic scholars of the first centuries was religious and traditional; it consisted of the knowledge and the interpretation of the texts of Koran and Hadith. From these two sources the "learned" of Medina and Irak during the VIIIth century began to derive the systems of Muhammadan Law and theology, thus creating the two oldest Muhammadan sciences: jurisprudence (*fiqh*), including the religious obligations, and theology (*kalām*). A typical scholar of the ancient type is al-Ḥasan of Baṣra (died 728), whose personal and independent attitude in religious and political matters assured him a dominating influence with later generations. His life story offers a good illustration of the relative independence from political authority enjoyed by the learned class of Islam. When its members began to study the more worldly sciences — which in general require protection and furtherance from worldly rulers and governments —, they too were able to derive benefit for themselves and for their science from the privileged condition of the social class to which they belonged.

Together with the beginning of Islamic "science" we witness the birth of Muhammadan book culture. The Arabic alphabet, in its so-called "naskhi" form was already in existence when Islam was preached in Mecca. It derived from one of the northern Semitic alphabets and was admirably fitted for the Arabic language. By papyrus finds we know that it was in current use during the first century of Islam in Egypt, and the literary sources inform us that already in very early times parts of the Koran and of the Tradition were written down. It is regarded as one of the shortcomings of the Arabic script that it does not record short vowels; this, however, was hardly felt as such by the town-dwelling Arabs themselves, for whom script was only of secondary importance, being used exclusively for the needs of everyday life. It was therefore no drawback that quite a number of letters were not clearly distinguished from each other, so that for the sake of precision a system of dots had to be used. This stenographic character of the script and its obvious usefulness for the Arabs is another feature of the provincial quality of Arabic culture. It does not seem to have been used for the recording of the ancient poems, and the chief method of transmitting even the text of Koran and Tradition remained oral. But precisely this provincial character of the Arabic script has given it qualities that have assured its great success — and

incidentally the success of the language itself — among the islamized peoples. Its shorthand character implied that many letters could be linked up with the following letter in one single stroke, and that most letters developed special final forms. This was an unsought-for means of separating, in writing, the different words; and this again gave a greater clearness to the written text, a clearness that was never reached even by Greek, Coptic and Latin manuscripts of the time, where the letters had always the same form, while separation of words by open spaces was unknown. The provinciality of the Arabic script was also marked by the lack of capital letters; this feature never was a serious drawback in classical times, but it is felt as such in modern times; in the same way, on account of their differentiated forms, it is more complicated to print or type Arabic letters than Roman characters.

At the time of the diffusion of Islam the Syriac script and the Persian script, the so-called Pehlevi, had, it is true, the same peculiarities as Arabic, but the strokes in Syriac writing were far more cumbersome, while Pehlevi, on account of its confused ligatures — not to speak of the cryptograms — had not the qualities necessary for becoming the vehicle of a world literature. This makes us understand why the Syrians and the Persians must have been predisposed to adopt the Arabic script, which, like their own, runs from right to left.

On the other hand the first Arabic book script, as we know it from old Koran manuscripts, shows a monumental form, the so-called Kufic writing, which has also long been used in inscriptions on stone and on coins, and which was influenced by Syriac. In the course of time, however, the older naskhī was nearly exclusively adopted for manuscripts. And when naskhī came to be used for inscriptions, its lines proved to possess unexpectedly rich ornamental qualities in the arabesque, one of the chief features of Muhammadan decorative art.

Arabic writing in the course of time was improved under Greek influence by the adoption of vowels and other signs. So we may say that, on the whole, the development of Arabic writing symbolizes the development of Islamic civilization itself, in its original intrinsic value and its capability of adaptation. Something will have to be said later on about the notation of numbers, but it will be clear from the above how admirably the Arabic writing was fitted for the needs of a new literature and at the same time of a new trend of thought.

The art of writing had been used from the beginning to note down

parts of the Koran, and tradition knows the names of several persons who served the Prophet as scribes. The writing down of revelations was at first only an auxiliary means of preserving the text, since the orally transmitted Koranic texts as well as those of the Hadith had, for a long time, at least the same authority. The ancient poems too had always been handed down orally. But the special, not entirely Arabic, character of the Koran, which in its own words was a "*Kitāb*", a Book, as the Syrians called a written literary document, soon led to the composition of several recensions, amongst which the one made by the orders of caliph 'Uthmān (644-656) is the best known; in the course of time it gained undisputed authority. But the history of the Koran shows that the fixation of its consonant text was not sufficient to exclude the existence of different "readings". Here the absence of vowel notation was one of the reasons why oral tradition and interpretation continued, in a large measure, to accompany the transmission of written texts, not only of Koran and Tradition, but also of other written books that were produced in the course of time by the "learned". The Koran, being the first Arabic Book, with leaves bound together in the form of a codex and preserved between two covers, became the prototype of all books produced by Muhammadan scholars, who always put at the head of their treatises the first words of the Koran and its sūras: "In the name of God the Merciful, the Compassionate".

The material used for writing during the first century of Islam was chiefly papyrus, as it was in all cultural centres of the time, while, for documents of greater importance, prepared animal hides were used (vellum). This applied also to the very ancient copies of the Koran. The use of other, more primitive material such as bones and potsherds is also recorded among the fragmentary notations of Koranic passages that afterwards served in the establishment of the Koranic text. A momentous change was brought about by the introduction of paper into the Islamic countries from China, by way of Transoxania, where the Arabs had for the first time come into contact with the Chinese. We do not know exactly at what time paper was for the first time manufactured in the domains of the Caliphs, but it probably coincided with the beginning of the Abbasid dynasty (750 A.D.). In early Abbasid times paper was already manufactured at Bagdad, and the already existing unity and interdependence of Muhammadan material civilization made it possible for the knowledge and the use of the new writing material to spread in a short time all over

the Muslim world, from whence it subsequently became known in Western Europe by way of Spain. The use of paper in writing books must have had an enormously stimulating influence on the literary activity of the "learned" in Islamic society.

The scene of the activity of the early scholars was the towns of Medina, Kūfa and Baṣra. Our information on cultural history in those times is very incomplete, as only few authentic documents have reached us. We know, however, that there was in Umayyad times a copious poetical production and that simultaneously the large body of traditions (Hadith), came into being, which reflect the cultural and mental attitude of the circles in which they were transmitted. Later tradition was much more detailed about the activity of the scholars in the domain of religious knowledge and related studies than about secular sciences. This circumstance is easily explained by the origin of Muhammadan learning as sketched above, but also by the course which Islamic literary interest took after the XIIth century, when the interest of the writers and the copyists gradually narrowed down again to the religious matters that had also been the object of the studies of the first "learned" men. The more worldly studies, indeed, may as a whole be considered a side branch of the tree of Islamic science, flourishing at one time, but finally letting its fruits and its seeds fall on non-Islamic soil.

The "Book of the Keys of Sciences" written in the Xth century divides the sciences practised in the Muhammadan world into two main categories. The first category contains the "sciences of the Sacred Law" and the so-called "Arab Sciences". The second category comprises the so-called "non-Arab" sciences, which had been learned from the Greeks and other foreign peoples. The sciences of the Sacred Law are theology (*kalām*) and jurisprudence (*fiqh*), which studies belonged, as has been said, to the earliest occupations of the Islamic scholars. During the first centuries these sciences went through an evolution, in the course of which many foreign elements were assimilated.

Theology in the course of time had to face many concepts introduced by the study of the Greek philosophers. As we shall see hereafter, this contact brought about in Islam certain new types of theological-philosophical thought. These came to form the ideological background for the mental activity of all the later generations in Islam.

The overwhelming importance of jurisprudence for the social

life of the Muhammadans has only become clear after long study of this subject by orientalists. It is the study of the so-called "Sacred Law" in a stricter sense. This has the outward form of a collection of religious, social and moral obligations of the Muslims. It was early developed by the Muhammadan "learned men", the doctors of Medina, in the spirit of the commandments of the Prophet and in conscious opposition against the worldly practices of the Umayyad caliphs and their servants. In this way the "Sacred Law" became an intrinsic part of the religion of Islam, a religion which, from the beginning, had laid more stress on action than on creed. In this way Muhammadan Law had become, it is true, an ideal law, and many of its prescriptions and prohibitions were not applied in practice. Yet its ideology, being so intimately linked up with religion, never lost its sway over the minds of the Muslims. Everybody possessed of some erudition had studied its text-books, and we certainly must ascribe to its immutable character some social and economical dispositions that conditioned scientific activity. It is difficult to be more precise on this point at present, but we shall have occasion to refer to it later on.

The "Sacred Law" contains many prescriptions that have given rise to practical scientific occupations. This applies to the social prescriptions, but also to that part of the Law, which rules the duties connected with the religious cult (ritual prayer, fasting, the pilgrimage to Mecca) — duties that do not belong to law according to modern conceptions. Among the former, family law and the law of succession are the most important, because they were actually followed in practice.

There are in the first place prescriptions which require notions of chronology. Certain duties, such as fasting and the pilgrimage to Mecca, are closely connected with the Muhammadan lunar calendar, and it was the task of the "learned" to keep this calendar in good order. The beginning of a new month was dependent on the observation of the new moon, and this directed the attention to the study of the moon. Furthermore, the hours of the day have to be determined in order to fix those parts of the day during which each of the five ritual prayers (*ṣalāt*) must be performed. The moments those parts of the day begin and end depend on certain astronomical phenomena, such as the declining of the sun after midday, the length of the shadow of a certain object, and the beginning of dawn and dusk. These moments could in general be easily determined by practice; sometimes use was made of special kinds of clocks — of which we shall speak later —, but the rules of the Law also induced the scholars to make

observations and calculations by which the exact moments could be fixed. There are, notably, interesting observations on the nature of dawn and dusk. Another point related to the ritual prescriptions was the determination of the direction of Mecca, in order to put the prayer niches of the mosques in their right places. This required a considerable amount of astronomical knowledge.

Other prescriptions of the Sacred Law necessitated the solution of arithmetical problems. This applies especially to the law of succession. The Koran fixes the quotas that are due to certain, mostly feminine, relatives of the deceased, varying according to the number of such persons. Together with these so-called "Koranic heirs", the principal heirs are the, mostly masculine, agnates, followed by certain other categories. Now the Arabic writers on algebra often take their problems from the division of estates. They construct very intricate cases, and the most difficult element in these is always the right observance of the Koranic quotas. It made them face problems that implied the solution of equations of the second degree. Although the methods of reckoning are certainly older than Islamic civilization and betray — as we shall see — Indian as well as Greek tradition, it was the connection of these problems with the Sacred Law that gave a powerful stimulus to the pursuance of the studies connected therewith.

Apart from these definite points the Law contains other prescriptions and institutions that are important in shaping social life in general. It is difficult to say in how far the marriage law, with its authorization of four legal wives, has influenced scientific studies. The veiling and the seclusion of women, typical for oriental life, does not find express support in the legal prescriptions. The only women of whom we hear that they were proficient in arts and even sciences are slave girls, who had been educated with the greatest care and were sold at exorbitant prices. The institution of slavery itself is canonized by Islamic law, but even in the domain of intellectual culture it not infrequently happened that gifted slaves rose to the mental plane of their masters and were in the course of time set free. The lack of social or racial prejudice in Islam towards slaves made it possible that these too could gain accession to the class of the "learned".

The prohibition, derived from the legal texts, against depicting living beings has already been mentioned in connection with the habits and beliefs of the pre-Islamic Arabs.

Finally we must mention the institution of the "*wakf*", or pious

foundations. It was these endowments, recommended by the Sacred Law, which secured the stability of large libraries, hospitals, caravan-serais, and other institutions which supplied the scholars' intellectual and material needs.

The "Arab sciences" were grammar, writing — namely the art of composing written documents, administrative and literary — poetry and prosody, and history. These studies too are intimately related to the first beginnings of Islam.

The impulse to the study of grammar was given by the efforts rightly to understand the Koranic text, but in the course of time it owed much to the better acquaintance with the grammatical concepts taught by the Greeks. In its lexicographical part it had to deal with many words of foreign origin, which did not square with the rules of Arabic word formation. Nevertheless this never led the Arab grammarians and lexicographers — the most famous and at the same time one of the earliest of whom, Sībawaihi (died about 800) was not even an Arab himself — to inquire into the grammatical structure of other languages such as Persian, Syriac or Greek. And when in later times there appeared treatises on Persian, Turkish and Mongolian, their authors took much trouble in exposing and arranging their foreign material after the Arabic pattern. Nor was the translation of many scientific works during the IXth century directly related to Arabic linguistic studies. It is nevertheless a fact that those translations have enriched the Arabic language, if not with many words, in any case with many new conceptions without which the Muhammadans never could have come to possess a scientific literature. A curious sidelight is thrown on the dominating position of the Arabic language by a treatise by the Nestorian metropolitan Elias of Nisibin (XIth century), who made a desperate effort to show that his Syriac was superior to Arabic. When in the Xth century Persian and in the XIth century Turkish began to be used for literary purposes, these first timid beginnings were a reaction by the self-assertive non-Arab peoples against the domination of the Arabic language, and not against the Islamic culture. Scientific literature of all kinds continued nearly without exception to use classical Arabic. But when we see that, as the Persian and Turkish national literatures arose, independent scientific activity gradually began to disappear, we cannot help seeing a relation between those two phenomena. One of the first requirements indeed for all Islamic scholars was a thorough knowledge of Arabic and its grammar, and when this common religious and cultu-

ral basis became gradually lost, scientific tradition was bound to decline likewise. It is true that Persian scholars did actually compose works in Persian in the second half of the Xth century, when the Persian literary renaissance began, and one of the earliest Persian prose works known is a treatise on pharmacology. This hopeful beginning, however, came rapidly to an end. Al-Nasawī, a mathematician of this time, who had written a Persian treatise on arithmetics for the use of the administrative functionaries in the Buyid residence of al-Rayy, says that he had been obliged to re-write his book in Arabic, because the Persian language was found to be too obscure and to require too many words. It strikes us immediately that this development is quite the contrary of what we observe in the Renaissance in Europe, for here the use of vernaculars marks the beginning of a new era of scientific research and activity. In the Islamic countries there was no such new era, and consequently the new literary Islamic languages were not used for such purposes.

The sciences of poetry and "writing" were likewise related with the pre-Islamic past and with the growing administrative and literary practice of early Islamic society. Knowledge of these subjects was no less important for the scientists than that of grammar, for their treatises required a perfect literary form. Scientists by no means thought it beneath their dignity to set forth their knowledge in poems. One of the elements that we miss, however, in the science of "writing" is a theory about the composition of books according to a logical scheme. It is true that most treatises were subdivided into books, chapters and different headings (as was the Koran), but this often exaggerated and over-elaborate subdivision has been justly called a fault. The leading principles of such divisions were mainly external, but for several subjects of study this treatment did not prove to be a real obstacle. In the study of Muhammadan Law, for instance, the different subjects treated have been arranged after a perfectly workable pattern that has been used for centuries in the entire Islamic world by jurisconsults of all the different schools and sects. The great Hadith collections likewise have come to be collected in a series of chapters after a certain standard scheme. In other cases the subject itself indicated the method of composition, as in historiography, where the sequence of events was a given pattern for the annalistic writing of history. In the treatises on geography, a certain confusion can be observed in the beginning, but as the geographical distribution of the known countries was made to fit

into a fixed scheme, it provided an easy means of arranging the subject-matter. Finally, the authors not seldom had recourse to the alphabetical arrangement, after the example of the lexicographers; this system was occasionally used in geography, in medicine (pharmacology), natural history (alphabetical lists of animals and plants), geology (stones and minerals) and other sciences, as biography and bibliography. On the whole the alphabetical method is rather late (from about the XIth century). The authors found it most convenient to insert under one of the alphabetical headings whatever information they wanted to give. A XIVth century author, al-Damiri, who wrote a zoological lexicon, found occasion to insert in his article on the goose a digression on the history of the Caliphate, occupying three tenths of the entire work. This is, of course, a symptom of later times, but it is significant for the general lack of methodical treatment, while it illustrates at the same time the traditional disposition of scholars towards literary forms.

So, though systematic treatment of their subject is not one of the original virtues of Muhammadan authors — a failing which really affects Islamic scientific pursuit as a whole, making the "summa" of their learning a vast compilation of knowledge rather than a reasoned understanding of relations —, there is a category of writings where a more systematic treatment is successfully applied. This higher literary and intellectual form only spread after Greek "philosophical" works had become known through translations. It is in Islamic philosophy, astronomy and other sciences, most of them under Greek literary influence, and later also in theology, that we are apt to find the methodical treatment which, by the influence of Aristotle, is also a feature of scholastic reasoning in the Middle Ages and is still active in our modern way of thinking.

The importance of Islamic book culture appears also from the great care given in the golden age of Muhammadan civilization and also afterwards to the collecting of large libraries in the palaces of the rulers, and later in the mosques. The number of books stated to have been kept in the libraries of the big Persian towns al-Rayy, Shirāz etc. in the Xth century was particularly great.

As to the study of history, its origin largely lay in the ancient Arabs' knowledge of the famous battles fought in antiquity between the Arab tribes, a knowledge indispensable to those who wished to fully understand Arabic poetry. To this stock were later added the reports about the life of the Prophet and the events in Arabia under the first

caliphs, then the records about the great conquests in East and West, and last but not least the violent events of the civil wars and the birth of the politico-religious parties which within fifty years of Muhammad's death (632) put an indelible stamp on the political and social aspect of Islam. The transmission of this historical knowledge during the first century went parallel with the handing down of the Tradition about the Prophet, and some members of the learned class began at an early time to make collections of the information at their disposal, putting them in the same traditional form as the Hadith, that is to say, provided with a chain of authorities who had transmitted the facts in a credible way. These collections were the material from which, since the VIIIth century, the books about the Prophet's biography and the "Conquests" were composed. So we see that the writing of history is also intimately related with the rise of Islam itself, or, what amounts to the same thing, Islam has given the Muhammadan peoples their history.

Most of the peoples who came under the Arab domination had no history in this sense. This even applied to the Persians, among whom the historical sense was only weakly developed, their historical traditions being apt to assume too soon a legendary character. As to the Syrians, their interest was entirely directed towards church history. The historical reminiscences of the Egyptians were completely effaced by their change of religion, so that they only saw their history as the Jews and the Christians had taught them to. Historiography is one of the great achievements of Islamic culture. The study of history was an intrinsic element in the education of the learned; even many of those who devoted their life to mathematical, medical and related sciences are reported to have written on history. It must be added that Islamic historiography continued to flourish also among the peoples who had abandoned Arabic as their own literary language. Persian, Turkish and Hindustani historical works belong to the most valuable branches of those literatures.

The Islamic historical outlook was not that of ancient Greek historiography. It has already been remarked that the bulk of historical works in Arabic are mere chronicles. Sometimes the annalistic principle is connected with the other principle of distributing the historical material over a number of dynasties; later works often restrict themselves to single dynasties. Now one of the achievements by which Islamic historiography has gained much credit is that it has incorporated in its chronicles also the history of pre-Muhammadan dynasties;

in this way for instance much has been preserved of the historical traditions of the Persians extant in the first centuries of Islam. This interest in foreign peoples is best to be explained by the original attitude of Islam. In the Koran mention is made of other peoples in Arabia and elsewhere to whom God had sent prophets, and the story of those prophets has even given rise to a special branch of literature. On the other hand the reference found in the Koran to older human communities induced the scholars to construct a scheme of world history, where all peoples with their dynasties could find a place. This scheme was substantially the same as that of the Old Testament, the origin of each single people being traced back to one of the sons of Noah. As the Persian traditions became better known they were found not to fit in with this scheme, but this difficulty was often dispelled by declaring ancient Persian heroes and kings identical with personages known from biblical history. The islamized Persians themselves did not raise any objection against those identifications, although a certain national pride made them bring their historical and legendary records within the scope of Islamic knowledge. In fact, already in the VIIIth century there existed Arabic translations of the Sassanid "Royal Annals". The attitude of Muhammadan students of history was indeed unwaveringly directed towards historical truth. They recorded legendary traditions only as far as these might contain the memory of real events, which of course had to fit in with the general historical scheme. The same attitude is fundamentally present in the Islamic history of religions or heresiological literature, where we find expounded the tenets of many creeds and diverging opinions within and without Islam; here again the main object is not only apologetical and polemic, but also the investigation of religious truth.

Curiosity with regard to beliefs and institutions among foreign peoples was certainly not absent. There are many interesting examples of this in Arabic literature, beginning with the remarkable "Book of Idols" written by Hishām ibn al-Kalbī in the VIIIth century, which contains information about pre-islamic paganism among the Arabs. Furthermore, the entire Muhammadan geographical literature reveals a well-directed curiosity in many authors. Nevertheless we can say that the knowledge of these things remained mere curiosity, and that their study never obtained an independent place among the Islamic sciences. As an instance we cite the attitude towards archaeological finds. One could make a useful collection of data supplied by quite a number of authors concerning Egyptian antiquities; several royal tombs

were opened by the order of Muhammadan rulers in Egypt and not a few Egyptian temples, still existing in Islamic times, such as the great temple of Akhmim, are described in detail. The origin of the pyramids and the meaning of the hieroglyphic signs is often discussed, and all kinds of fantastic explanations are offered. Ibn Khaldūn (beginning XVth century), in discussing the various ways of acquiring wealth, severely criticizes the profession of the treasure-seekers in Egypt, which occupation he not unjustly compares with alchemy, but he never says a word to lament the damage done to the remains of high antiquity. No endeavour is made to bring the knowledge of antiquities into reasonable connection with the history of the ancient Egyptians; the building of the pyramids is generally connected with the story of the Flood. Likewise there was no real understanding for the archaeological monuments in Persia; the great rock relief of Darius and his prisoners at Bisutun is explained as a schoolmaster and his pupils. The stimulus to investigate the real meaning of these things was lacking, because those monuments did not possess the authority ascribed by the Muhammadan scholars to literary tradition.

We might infer from the above considerations that there never was an Islamic Herodotus. Yet this is not entirely true. There have been scholars who have made a step forward and who have without prejudice studied the institutions and ideas of other peoples; an outstanding figure among them is the great al-Bīrūnī, who lived in Eastern Persia in the beginning of the XIth century. In 1030 al-Bīrūnī composed a description of India, then recently conquered by his patron Sultan Maḥmūd of Ghazna; this description is entitled "An Enquiry into the opinions, acceptable or rejectable by reason, which are held by the Indians". The book describes indeed many beliefs and ideas that must have sounded absurd and blasphemous to his fellow Muhammadans. Al-Bīrūnī was aware of this fact; in discussing the geographical opinions of the Hindus he says: "If something in it appears strange to us, so as to require commentary, or if we perceive coincidence with others, even if both parties missed the mark, we shall simply put the case before the reader, not with the intention of attacking or reviling the Hindus, but solely in order to sharpen the minds of those who study these theories". We may add that in the same work al-Bīrūnī has left a remarkable criticism of the merits of the Sanscrit language, which is likewise a quite uncommon feature amongst Islamic scholars, as has already been remarked. Another instance of unprejudiced keen interest

in human institutions may be seen in the sociological theories developed by Ibn Khaldūn in his famous *Muḳaddima*.

The "Religious and Arab sciences" thus far treated have a firm common root in the activity of the first Islamic scholars, although to a great extent those sciences owed their later development to additions from other cultural spheres. The same applies to a subject of study not expressly mentioned in the "Keys of Sciences" and which, in fact, only in later times came to be regarded as a separate science, namely geography. The knowledge of the geography of the Arabian peninsula was indeed closely connected with that of ancient Arabic poetry, and the lexicographers had at the same time to record the very rich local nomenclature of the Bedouins. Even the Koran contains some geographical notes, amongst them the assertion that there are two big seas, between which is a "barrier". Most later geographical authors have tried to find a confirmation of this Koranic view by declaring the "two seas" to be identical with the Mediterranean and the Indian Ocean, the isthmus of Suez being the barrier. In doing so those authors underline their Islamic point of view; their attitude towards the Koran is the same as that of the Greek geographers towards Homer, whose geographical statements they try to explain as being correct. But through the development of Islam, geographical interest, just as the historical studies, went beyond the boundaries of Arabia proper and was, in the course of time, compelled to seek an entirely new orientation. This orientation was first found by the adoption of the Ptolemaic system. But it is worth while to observe that Islam in the Xth century developed an essentially Muhammadan geographical outlook, devoting a detailed treatment only to the countries at that time forming the Islamic world. The traces of this Islamic geography have remained throughout the following centuries, although the general geographical outlook was certainly changed considerably by political events.

We have already pointed out the way in which Muhammadan authors viewed the peoples of different countries and their traditional and historical institutions, and observed how men of the scope of al-Bīrūnī — who also made remarkable statements in the geographical domain — sometimes passed beyond the boundaries of Islamic ideology. But on the other hand the geographical interest became related to a literary genre that appears in the XIIth century and is generally styled cosmographic. This literature is in a sense an extension of geographical literature. Subjects such as geology, zoology, botany,

chemistry, climatology, astronomy, which heretofore were treated incidentally in descriptions of towns and countries, are now arranged after a cosmographical scheme, in which descriptive geography still retains an important place. But the ideology that underlies these cosmographical treatises is again essentially Islamic, as its object is announced as being the description of God's wonderful creation. An often recurring title of these books is "The Wonders of Creation", in which, during these later centuries, undue stress is laid on the wonderful. The authors are ready to accept the most abstruse stories, which may be in accordance with Islamic tenets, but which are not consistent with reason as it was understood by true scholars. Thus for instance a Spanish author of the XIIth century described a being called "nasnas" living in Southern Arabia; this being consists of half a human body; it can recite poems, but it is hunted by the inhabitants of the region and its flesh is eaten. The same author describes a fish that is so large that it cannot pass from the Atlantic into the Mediterranean, the divine decree thus preventing it from devouring all the fish in that sea.

This changed geographical outlook was second only to the religious outlook in importance for the shaping of Islamic civilization. The political centre of the Muhammadan Empire was just in the countries situated between the "two seas": Arabia, Syria and Irak, and thus the Muhammadans were much better able to determine their geographical position in the world than the Greeks and the Romans. The latter had certainly known the eastern countries, but the Muhammadans knew them better. The conquests of Alexander the Great had comprised, it is true, the same territories and more, but the great cultural wave of Hellenism had not succeeded in creating a cultural unity so universal as the Muhammadan community actually was. The cultural horizon of Christian Europe was limited towards the South and the East by the Islamic Empire, and although the cultural roots of both communities were much the same, both even having developed a very similar religious ideology, there was, during the centuries that Islamic culture flourished, hardly any cultural intercourse between the two. Thus the superiority of Islamic culture was during a long period conditioned by geographical circumstances.

But it was by these same conditions that the Muhammadan world was developing a strong tendency to selfsufficiency, economically and culturally. The need of seeking heavenly and earthly wisdom beyond its boundaries was not felt except by a few, and the same

applied to the need for economic goods. By contrast, Christian Europe kept facing the East, where lay Jerusalem. The aspirations of its monks, the imagination of its scholars, and the worldly desires of its princes and merchants included the regions where Islamic domination celebrated its worldly triumph. When at last the material bonds were broken by the Crusades, by the revival of commerce, and finally by the discovery of the sea route to the East, the Muhammadans for a long time kept their selfsufficient cultural attitude, while they were at the same time gradually being enveloped, and at length pervaded, by Christian Europe.

Before turning our attention to the non-Arab sciences as understood by the "Book of the Keys of Sciences" we now have to consider the material conditions of the Muhammadan world.

Within a century after the rise of Islam an enormous expansion of territory had become the common inheritance of all the people who had first been subjugated by the Arab armies, and soon afterwards had been ever more united into a great community, where the religious forces already described were moulding the minds of its inhabitants. At the time these forces were having their fullest effect this unity had already ceased to be political. Yet so strong were the religious and cultural ties which held all those different countries together, that until well into the Middle Ages the Muhammadans could speak of the Empire of Islam.

No less than the religious tradition have the material conditions prevailing in the Islamic countries contributed to the established type of Islamic material culture. It so happened that the physical features of those countries, from Morocco to the Indus valley and from Trans-oxania to Southern Arabia, were much the same. They consisted largely of steppe-like plains and plateaux, in which the cultivated areas were separated by more or less extensive deserts; inhabited by Nomads. The position of the cultivated areas was determined by the existence of wells or, in the mountain regions, by streams; larger strips of cultivation were found mainly along the greater rivers and especially in their deltas, such as those of the Nile, the Euphrates and Tigris, the Indus and the Oxus. Large forests were exceptions, and even along the extended sea-shores of the Mediterranean and the Indian Ocean — including the Red Sea and the Persian Gulf — the desert character was predominant. The physical conditions of Arabia, the cradle of Islam, were everywhere repeated, though often in a milder form. All the Islamic countries lay in more or less the same latitudinal zones.

One can understand how these uniform conditions could give rise to an equally uniform mode of material and social life. And since by the Arab conquests the earlier religious and political boundaries had fallen away, the different habits in material life, such as agriculture, house-building, clothing, handicraft, etc. could diffuse from east to west and from north to south. In the same way the nomads of Arabia, North Africa, Syria, Persia and Turkestan led much the same kind of life, living mainly on meat and milk. The settled population lived on bread and milk, wheat being cultivated everywhere where the soil was sufficiently moist, while barley and dura were restricted to the dryer regions. Rice only occurred in marshy regions.

In almost all the various countries there was the vital problem of the irrigation of the soil. Age-old tradition had already in most places prescribed the technical methods by which water could be brought to the areas in need of irrigation, and controlled during dangerous floods. It does not appear that in this matter a uniform technique was ever reached. It would even seem likely that nowhere throughout the Muhammadan world the irrigation technique reached a higher level than in antiquity. The most famous water works, such as the irrigation system of the Fayyūm in Egypt, the barrage in the Kārūn river near Shuster and the dike of Ma'rib in Yemen already existed in pre-Islamic times. The material available for the dikes was often wood, as in Egypt, Mesopotamia, Northern Persia and Transoxania; in the latter countries dried hard mud also furnished excellent material. Southern Persia had irrigation works of stone. In Persia the method was practised of digging long subterranean irrigation canals, which could gather all the available water from the mountain streamlets and from the soil. A symptom of inter-islamic collaboration in these matters was the invitation addressed by the Fatimid caliph al-Ḥākim (c. 1000) to the famous scholar Ibn al-Haitham of Irak, to come to Egypt to regulate the course of the Nile. In this he failed, however.

Nearly everywhere the irrigation provisions were a matter of government care. This bears relationship to the fact that Muhammadan Law recognizes the ownership of water only in a very restricted degree, mostly as common property of the proprietors of the banks. The water regulations of the Law are probably of Babylonian origin and imply many special obligations concerning the use of the water. In the large cultural centres the maintenance of waterworks was always supervised by the government. Everywhere a large body of

engineers was constantly occupied. Their care in many instances also extended to the irrigation machines. These varied from very simple water-drawing gears — where the cables run over turning axles, as was especially the case in Arabia — to various kinds of hydraulic wheels moved by camels or other animals. In Irak watermills were also known, which, in Basra, were set in movement by the water flowing back at low tide. The use of windmills for irrigation is nowhere attested. They were used, however, for grinding grain in Eastern Persia (Sistān), where there is a constant strong north wind during the winter months.

Not only agriculture, but also the cultivation of all kinds of fruit was largely dependent on the irrigation of the gardens and groves. While some fruits, like grapes, were grown nearly everywhere, others were restricted to certain regions, such as watermelons to North-Eastern Persia, dates to the hotter regions (North Africa, Irak, Southern Persia, Arabia), and olives to North Africa and Syria. Sugar was mainly cultivated in Irak, Southern Persia and Yemen. Nevertheless all these fruits were to be found at an early period in all Muhammadan countries, thanks to the regular caravan traffic. Caravan trade was organized in the Empire of Islam in such a way that the merchants could convey their goods anywhere they were needed. It worked by means of many important emporiums or market towns, scattered all over the Islamic world. In these towns there lived the wealthy merchants and the no less important proprietors of camels and other beasts of burden, who supplied the necessary means of conveyance and other travelling equipment, as far as these went. It does not appear that the material equipment and technical accomplishments of caravan traffic were much superior to those of pre-Islamic times; since immemorial times it relied on the experiences of the plains-dwellers of Arabia, Iran and other countries. But the intensified traffic that had sprung up in Muhammadan times — the yearly conveyance of pilgrims to Mecca was an important factor — raised caravan trade to a much higher degree of efficiency, which in turn brought about a reinforcement of the cultural unity. The requirements of commerce had caused the application of not a few technical contrivances, such as the packing of melons, exported from Khorasan, with snow and leaden covers in order to keep them fresh. The sugar that went from Yemen to Bagdad was introduced, in a liquid state, into reed shafts, which afterwards were cooled and closed at the end with gypsum.

Caravan trade was not less efficient in spreading certain industrial products, in the first place the products of spinning and weaving. Though flax was originally only known in the West — the principal flax-growing country being Egypt — and cotton in the East, yet the products of the looms were everywhere to be found. There is evidence that the weaving techniques existing in different countries influenced each other, so that for instance a peculiar kind of linen textile made in Egypt could also be made in Persia or in Spain. Silk, originally introduced from the Byzantine Empire, was mainly spun in Northern Persia; it was woven in the looms of Southern Persia and from there exported "to all the horizons", as the Arabic expression goes. This applies also to the products of the wool industry. The manufacture of woollen goods and garments was since olden times as wide-spread as the rearing of sheep, goats and camels. Woollen clothing was indeed the cheapest dress in the Islamic world, and wool (*ṣūf*) has given its name to the mystics or *ṣūfīs*, after their woollen clothing. The more refined woollen products, such as the carpets and rugs from Persia, Armenia and Transoxania (Bukhara) had to be conveyed to the great cultural centres, where they were much appreciated.

We are not very well informed on the actual technique of weaving and spinning, but we know that in certain countries these arts reached a high degree of perfection, so that the finer products were only within the reach of princes and very wealthy persons. Very valuable rugs were those covered with an interwoven layer of gold or silver thread, of which we still shall have to speak. The craftsmen had also developed an extraordinary skill in the methods of dyeing. The dyeing materials were principally indigo for blue, and the kermes worm, or also madder, for red, while yellow was supplied by saffron or the samelike plant called *wars*, in Yemen. These materials had to be imported from the special regions where they were native.

Neither the spinning, weaving and dyeing industries, nor any other form of industry, was ever practised otherwise than by individual craftsmen, or little groups of them, in their own homes or their own shops. There was no tendency towards capitalist organization. Under the Fatimids in Egypt, it is true, we find a kind of collective labour in large weaving looms with paid labourers. These factories were, however, enterprises of the ruling caliphs in order to provide themselves with beautiful and precious textiles; the products were not for sale, although they were highly esteemed, and even foreign rulers were

glad if, by way of an exceptional favour, they were allowed to acquire some for themselves.

To explain this lack of capitalist organization — and in this respect the medieval Muhammadan world certainly lagged behind the Roman-Hellenistic world — it is often alleged that the absolute power of the rulers did not allow the accumulation of large capital in the hands of a few individuals or groups of individuals, so that the economic stimulus for collecting large sums of money was lacking. The only subjects, it is said, who possessed a comparatively stable form of wealth and capital were the great merchants, who had their goods scattered in caravans and ships all over the world, so that loss by any arbitrary government act would affect them only to a small extent. This argumentation seems to be only partly true. It can be proved that there were at all times in the Islamic world a good many very rich people, who got their revenues mainly from large estates, and who often excelled in philanthropic actions towards their fellow-men. By their largesse they furthered scientific activities and investigations, as did the "sons of Mūsā" in Bagdad in the IXth century. They also took part in trade as limited partners. Nevertheless they no more thought of investing in industrial enterprises in order to increase their income than did the rulers themselves, even though the organization of those enterprises would have been possible by making use of slave labour.

The explanation of this negative economic attitude must probably be sought for in the general instability of personal, economic and political life. This instability may be witnessed in the history of all Muhammadan peoples and is best illustrated by the constant danger of cultivated regions being overrun by the nomads of the plains. It strengthened the often arbitrary authority of temporal and local military rulers, and it brought about the fatalistic disposition of mind which is to be found among all Muhammadan peoples, and which prevented them from seeking material gains that did not seem immediately obtainable. This disposition was also anchored in the religio-legal system of the Sacred Law, whose prescriptions about transactions are limited to goods that are really at hand.

The result of this state of things for the general direction of Islamic civilization was that the need of organizing and exploiting technical skill was never seriously felt. The craftsmen were contented with a moderate gain, which they were ready to share with their fellow-workers. With these they were united in guilds, organizations of

brotherhoods that knew no competition in the modern sense of the word. They satisfied the social and also the religious aspirations of their members, for each guild had chosen a patron among God's prophets and the venerated companions of Muhammad.

The exclusion of large worldly gain induced the craftsmen to direct their skill towards the quality of the product. In this way they created the perfect works of art in wood, stone and ivory, in leather, in metal and in pottery, which hold high for all ages the fame of Islamic art.

The best achievements of Muhammadan technical skill are to be observed in the details. This fact is also of importance for the material conditions in which scientific research could be carried on. It may explain why, on the whole, Islamic civilization failed to advance beyond its predecessor, the Hellenistic world, in the matter of great technical accomplishments. On the contrary, it appears from our Islamic authors that the great achievements of pre-Islamic times, such as the Egyptian pyramids, the Roman aquaducts, the irrigation system of the Fayyum, and even the palaces and rock-sculptures of the Persians, were readily considered as something that lay beyond the powers of their culture. Those were the "Wonders of the World" for all times to come. But the contemporaries were not in a position to appreciate how much their own detail work was steadily advancing. Had this not been the case, Medieval Europe could never have looked upon the Islamic achievements as something superior, which it was worth while taking over. Only, for the reasons indicated above it was not given to Muhammadan civilization to draw all the consequences of their achievements. This applies not only to the achievements in technology, with which we are concerned for the moment, but also to the achievements in thought, which will be dealt with hereafter.

We have already given some instances of technical proficiency in certain occupations, such as agriculture and industry. There are still a large number to be mentioned. The first is the use made of mechanical forces. According to the "Book of the Keys of Sciences" cited above, this subject constitutes a special science, called the "science of ingenious devices" (*hiyal*). It is subdivided into two chapters, the first of which treats of the "displacement of heavy weights by means of a small force"; the second chapter deals with "instruments of movement and the construction of wonderful vats". This science has been copied from the *Mechanikē* of the Greeks, but the proceedings and instruments described more often bear Arabic and Persian names than Greek. These instruments are different kinds of levers and crow-bars,

as used e.g. for the displacement of stones in stone quarries, and also pulleys and windlasses. More complicated instruments are oil-presses and *ballistae* for throwing stones and other projectiles in battle. The chief component parts of a *ballista* were a windlass and a wooden beam called "arrow", against the end of which reposed the stone to be thrown. *Ballistae* were used in the Arab armies at an early period; in 692 the Ka'ba in Mecca was bombarded by the caliphian army of al-Ḥadjdīdj. The knowledge and use of these instruments of war must have been taken over from the Byzantines. The use of wheels for locomotion was never wide-spread in the Muhammadan world, as camels could supply all the necessary requirements for the conveyance of burdens and persons. An author of the XIth century describes with wonder a kind of carriage he had found in use among the Slavonic peoples; he says that on the four corners of the carriage there were four poles, from which something like a camel-litter was suspended by cords, so as to prevent the travellers from suffering from heavy shocks. Wheels were at least in later times used in the construction of clocks.

A thorough knowledge of practical mechanical laws is shown in the Arabic treatises dealing with balances. One kind of balance, the so-called *karastīn* — by which heavy burdens were weighed by means of balance-arms of unequal length — is often described and theoretically explained. Practice and knowledge had been inherited, as in so many cases, from antiquity, but the use and theory of these instruments had become an intrinsic part of Islamic technological culture. Scholars like al-Bīrūnī knew well how to use these instruments for the determination of specific gravity.

Many instruments connected with the "science of ingenious devices" are in reality mere toys, in which movement is brought about by water-pressure in vats or tubes or by the gravity of sand. The "wonderful, vats" are a kind of automata or apparatuses such as jugs, bottles, glasses and similar objects, which, by a system of pneumatically working constructions, produce unexpected results in the filling and pouring out of liquids. They partly resemble those described in the "Pneumatica" of Hero of Alexandria. Their construction and invention was a pastime for the intellectual classes, and a work of the IXth century describes a number of similar automata that had been invented by or for the "sons of Mūsā", the well-known patrons of science in Bagdad. Here again we see how much the interest of the Islamic mind was directed towards details, but how, for the time being, it did not lead to far-reaching discoveries and applications.

One of the more important applications is shown in the different kinds of water-clocks. In its simplest form, as a jug hung from a tree, with water running out of it through a hole, it was used for the determination of the time allotted for the use of irrigation water on a certain piece of land. There were also more complicated clocks that worked by siphons, and these were called by an Arabic word rendering the Greek clepsydra. These water-clocks had also an other practical use, as by them the hours for the ritual prayer could be fixed. They were also used by astronomers. In the course of time a great perfection was reached in their construction, as appears from the treatise of Ibn al-Sā'ātī in Damascus about 1200. The father of this author was a clock-maker and had constructed the famous clock of the mosque of Damascus. In this clock were two falcons, which, at the end of each hour, threw balls into a brass plate; further there were twelve open doors, that were successively shut each hour of the day, while, during the night, a circulating lamp each hour illuminated a brass disc, on which the number of the hour was probably indicated. This was a water clock, but there were also sand clocks and clocks in which use was made of candles. In addition time was eventually measured by sun-dials, astrolabes, and even certain kinds of balances. The authors of treatises on clocks ascribe their invention to Archimedes, but probably the Muhammadans attained a higher perfection in details. Though their working is nowhere clearly described, it appears that they sometimes contained systems of wheels that set each other in motion.

As regards Muhammadan building technique, it is well known that its merits and artistic qualities are to be sought in ornamentation. Experts tell us that one of the tendencies of Muhammadan ornamentation is to fill up any available wall space with arabesques or other ornaments, without regard for the main lines of the construction. This again would point to the characteristic interest in detail. On the whole the construction methods depended on the building material locally available. In countries such as Mesopotamia, Irak and Northern Persia houses and city walls were built with the mud of the loamy soil; usually it was merely dried in the sun, and only in exceptional cases were the bricks baked. Stone buildings were only made where there were stone quarries, as in Southern Persia, while wooden buildings were only found in well-wooded regions, such as Māzandarān, south of the Caspian. Incidentally we may observe here that the general scantiness of wood in the Islamic world must be held responsible

for the relatively small importance of ship-building. Wood had often to be imported from non-Islamic countries.

The building technique was that of pre-Islamic times; the ancient monuments were considered, as has been said, superior to contemporary skill. Constructions of vaults and vaulted archways were relatively scarce; vaulted bridges were exceptions and are pointed out as remarkable buildings. Yet there was much refinement in details if wanted; the walls of the houses of the wealthy in Bagdad had big holes, where in summer pieces of ice were placed in order to keep the inner rooms cool. The bathing establishments (*ḥammām*), so typical for social life in Muhammadan towns, were particularly luxurious, and ingeniously constructed. In the architecture of palaces and mosques there was a certain unity of style; this required a greater amount of trouble in procuring building materials (wood and stone) in places where these were not so near at hand. An instance is the mosque built in 876 and following years by Ibn Ṭūlūn in his Egyptian capital al-Fustāt; this mosque copies the style of the caliphian palaces in Samarra.

Furthermore we have to consider the important part played by all kinds of minerals in the material civilization of Islam. The African gold was procured by barter trade with the Sudan negroes south of the Sahara, and also by gold-digging in the desert between the Nile and the Red Sea; silver came mainly from the silver mines in the Hindu-Kush mountains. Thus the Islamic territory offered the possibility of the combined gold and silver currency that was established by the Umayyad caliph 'Abdalmalik (685-705). The golddiggers obtained the gold by mixing it with mercury; for the extraction of silver much wood was required for smelting. The absence of wood sometimes necessitated the abandonment of a silver mine. We know from the remains, and from literature, how well the goldsmiths in the Muhammadan towns knew their trade. As to the refinement reached in this art we cite as an instance a carpet probably made in the XIVth century in Southern Persia; on the cotton texture of this carpet there has been fastened, by a kind of knitting technique, another layer consisting of gold and silver thread, and on this layer again the pattern has been worked in silken knots. The gold and silver threads consist of woollen threads round which are wound copper fillets of about half a millimetre in breadth and covered on one side by a very thin layer of gold or silver. Unfortunately we have no description of the technical procedure used for obtaining this result. The same is the case with the other kinds of gold and silver working, including the coinage of the gold

dinars and the silver dirhams which, since the beginning of the VIIIth century, were the currency of the empire.

The most useful metal was iron; it was found in many parts of the Islamic world. Many city gates were made entirely of iron, but the skill of the craftsmen was exhibited most brilliantly in the manufacture of smaller implements, especially of weapons. A treatise of the early scholar al-Kindi (IXth century) describes many kinds of iron and steel and their alloys; it shows the remarkable refinement attained in forging. There were innumerable prescriptions for the hardening of steel, all apparently discovered empirically. The materials added were prepared from minerals as well as from vegetable and animal substances. Their knowledge was generally kept secret and transmitted as such to the following generations. In this respect the smith's craft—since the oldest times surrounded by an aura of mystery—showed much resemblance with the art of the alchemists. Special attention was given to the damascening of swords; here too secret manipulations were used that served to make the pattern visible on the steel. Steel was furthermore used for hard needles as used in the manufacture of carpets, and likewise for the construction of bells.

Copper and its many amalgams did not play a smaller part in Muhammadan civilization than in the older civilizations. It was used for all kinds of utensils and notably in works of art such as lamps and plates, which are still amongst the most eloquent witnesses to Islamic artistry. The skill in copper-working has also produced the measuring instruments that served the Muhammadan surveyors and astronomers. The art of making astronomical instruments is said to have spread from the town of Harrān in Syria, from which also came much scientific knowledge in the IXth century. In Harrān the first astrolabes used by Islamic scholars were probably made. But it was again the refined skill of the craftsmen in the Muhammadan world that brought these instruments to a higher degree of perfection. In this domain there must have been a close collaboration between the scholars and the instrument-makers. It enabled the astronomers to order the execution of the very complicated forms of the so-called "spiders", which constitute the movable part of the astrolabe, and which show the stereographical projections of the ecliptic according to a special latitude. Ibn al-Zarqāla (Arzachel, late XIth century), the Spanish astronomer who invented a mode of projection permitting the use of one "spider" for all latitudes, was, as well as to his own scientific proficiency, indebted to the experience of long generations of Muhammadan cop-

persmiths. The astrolabe was not the only instrument that helped establish the fame of the Islamic astronomers. We have the description of even more complicated instruments, such as terrestrial globes and different representations of the universe, amongst which the armillary sphere and the spherical astrolabe.

The high perfection and refinement attained in metallurgy and some of the other crafts already mentioned would have been impossible without a thorough practical knowledge of a great many other mineral products. All of these were at hand in some part of the Muhammadan world. There is an extensive mineralogical literature in the "Stone Books", in which many minerals are described together with their physical, medicinal and astrological properties. The people who in the course of time gathered the greatest knowledge about these things were the alchemists.

Alchemy was in Islamic society a handicraft like any other. It can be described as a kind of auxiliary industry, which served a great many useful ends. Its methods were applied in the manufacture of many products. Anyone who operated with minerals, and applied the methods of distillation, sublimation, solution, desiccation, corugation, calcination, and amalgamation, could be considered an adept of the art of al-Kimiyā. All these operations are enumerated under the heading of the science of al-Kimiyā in the book of the "Keys of Sciences". The alchemists in a stricter sense were those who made researches on the transmutation of metals in order to make gold, and who called their art the "Wisdom" or the "Art" par excellence. The number of those who occasionally, and often secretly, dabbled in this art must have been rather great. Public opinion was rather prejudiced against these researches, and many are the statements found in various authors to the effect that alchemy is not an art by which one may become rich. Yet the social and economic conditions in Muhammadan society — to which we have already referred in discussing the refinement in textile and other arts — were favourable to quiet research in discreet laboratories by men who had no access to the other established forms of social activity. It is said that those who occupied themselves with alchemy were mostly poor people.

The alchemistic experiences in the wider sense were important enough to draw the attention of the Islamic scholars who, in the IXth century, began to systematize their knowledge. The "Keys of Sciences" is the oldest source to give a systematic survey of this art, but at the same time it proves that alchemy had long been practised and

developed. The book gives a description of the materials handled and of the instruments and methods used.

The instruments consist in the first place of apparatuses for smelting and liquefaction as are used also by goldsmiths: furnace, crucible, pestle and mortar, and bellows. In addition there are the typical alchemistic apparatuses for distillation and sublimation. They are made from glass or from clay or from both combined. The most important is the still. It is described as consisting of two parts, a bowl — called *al-kar*, the Arabic word for a "gourd" — and on top of this the apparatus called *al-anbiḳ* (said to come from Greek ἀμβίξ, a jug), which name has been preserved in modern languages as alambic. There are *anbiḳ*s with a tube and so-called blind *anbiḳ*s, without a tube. Different instructions are given for the dimensions of these instruments; the *anbiḳ* must penetrate into the "gourd" so as to fit exactly in the opening of the latter. The bowl with the *anbiḳ* was used for distillation and sublimation; with the blind *anbiḳ* or with a glass cover called *al-kadah* (the "cup") it served for the making of solutions and for solidification.

Distillation was employed in the fabrication of aromatic substances. There was also another method, already known to the Greeks, of making aromatic oils by means of mixing and pressing flower leaves and blossoms with oil. The distillation was practised with water. A treatise of about 1300 described a still called *karaka*, which was operated somewhere in the neighbourhood of Damascus. It consisted of a kind of trench in the soil, above which was built a little vault of brickwork. On the top of the vault was placed a caldron, heated by a charcoal fire under the vault. On top of the vault a circular building was raised comprising a certain number of storeys. Each storey had a floor of wickerwork, on which in a circle, glass "gourds" were placed with their necks and openings turned outside. The entire building, including the roof, which was supported by a wooden centre-post, might be as much as nine feet high. The "gourds" were filled with roses or other odoriferous flowers. Then the *anbiḳ*s were fastened onto the necks and under them were hung the recipients for the distilled liquid. Other similar stills had no caldron but heated the "gourds" directly by a wood fire. Great care had to be taken to prevent the cracking of the glass containers; the relevant prescriptions are said to date back to the physician al-Rāzī (Xth century).

The substances with which the alchemists operated are given in many sources, which show the great variety of minerals known.

For the greater part they bear Arabic and Persian names; Greek names are also found. The "Keys of Sciences" distinguish the following three classes of minerals: the "bodies" or metals (gold, silver, iron, copper, lead, tin), the "spirits" (sulphur, arsenic, mercury, salmiac), and the *'akākīr*, a word literally meaning "drugs". There are very many of the latter: salt, borax, vitriol, marcasite, magnesium, lapis lazuli and other precious stones. There are many such classifications, which seem equally arbitrary to us and are all influenced by the theories of the scholars about the origin and the nature of these substances, theories which owed their origin to translations of Greek works.

Our knowledge of alchemistic practices and discoveries by the Muhammadans comes from their scholarly works. These books allow only an imperfect insight into the development of the alchemist's art. They are of two kinds: one contains obscure speculations of a mystic character, which may have been hardly understood by the writers themselves. The other category is clearer and describes experiments. But the writings which for a long time were considered as the earliest, namely those of Djābir or Geber, who lived at the end of the VIIIth century, have now been proved to contain many speculative elements that certainly are not older than the Xth century. Therefore we do not know, for instance, what date to ascribe to such an important discovery as nitric acid, described in one of Djābir's books. It is clear, however, that all the time alchemistic research was conducted diligently, though very unsystematically, according to our standards. This is proved by the innumerable instructions for the preparation of the substance called *al-iksīr* (said to come from Greek ξήριον) or elixir, namely the substance that was to be added to a certain amalgamation of metals in order to obtain their transmutation into gold. A name often used to indicate the alchemists was "the people of *al-iksīr*".

We have surveyed the material conditions that created the opportunity for physical research in the Islamic world. We have seen how the industries and arts, working with the available materials, stimulated the interest and activity of scholars in two ways, firstly by putting at their disposal rich empirical knowledge, and secondly by supplying them with instruments such as clocks, balances, astrolabes, etc. With regard to the objects made of glass we may point to the glass balls which formed the object of Ibn al-Haitham's observations on the distance of the focus, determined by him as the fourth part of the diameter.

The material conditions also determined the social and economic frame which, as we have seen, set certain limits to the industrial development, resulting in a greater attention given to details. The life and the activity of the scholars themselves was conditioned in the same way.

The world in which they lived, following the military expeditions of the Arabs and the spread of Islam, formed an ideal unity. But owing to its enormous extension and the great distances between its principal centres of civilization an administrative unity, and consequently a lasting political unity, proved impossible. Ever since 750 we witness in space and time the fascinating pageant of the innumerable Muhammadan dynasties. Some of these lasted a century or more; others were rather ephemeral. Many of them rose from among the inhabitants of the Islamized countries in Africa and Asia. Many others appeared in their future kingdoms as invading nomads, either from within or from without the boundaries of Islam. Among the latter the Turks and the Mongols in the East and the Berbers in the West are best known. Every foreign invasion annihilated once more what feeble developments of national political life and of free citizenship might have been coming into being. There is no important Muhammadan town that has not been more than once taken by force or even entirely ravaged. Life, wealth, military and political success were ruled by a capricious fate. There were, it is true, at certain epochs and in certain countries periods of peace and prosperity under the rule of one of the longer lasting dynasties. It is at the courts of these dynasties and their surroundings that material conditions were best fitted for the activity of the Islamic scholars. Following ancient oriental tradition the Islamic rulers furthered arts and sciences. They supplied the scholars with pensions, libraries and observatories. This protection was by no means disinterested, for the caliphs, emirs, sultans, atabeks, shahs and other princes expected from their scholars not only medicinal and astrological advice, but also active help in the construction of instruments of war, and at least hoped that their alchemistic skill might put them some day in the possession of gold.

So the scholars were materially very dependent on political conditions. Not entirely dependent, however. For they constituted, by the origin of their class, the ideal and stable aspect of Muhammadan civilization. They were a democratic religious institution and therefore, as a class, no less — perhaps even more — respected than the autocratic rulers. If anybody could oppose the latter with some

hope of success it was the "learned". They would come out of the city gates to meet a conqueror and not seldom succeed in making terms. The scholars were the "intellectuals" of Islam. They could avail themselves, if they chose, of a personal and moral liberty that was denied to other classes. They could travel from court to court and were not in need of expensive means of travel, as they were most often well-protected and well-received.

It is our task now to assign to the actual scientific achievements of Muhammadan civilization their place in the general trend of thought prevailing throughout those ages. Now the problems connected with knowledge and philosophy in Islam are of a highly complex character, owing to several obvious circumstances.

The first reason for this complexity is that the growth and development of Muhammadan culture extends over at least six centuries, if we take as a term the time at which the scholars of Medieval Europe began to study the Arabic scientific and philosophical works. If we add the consideration that the Islamic scholars who had contributed to the mental output of that culture lived not only in very different times, but also in very different countries, we realize that the development must have followed many various lines. We can already say that the process during the first three centuries of Islam, when its ideal background was gradually taking shape, was of a quite different nature from that of later times, when Islam had settled down and found a firmly rooted mental equilibrium.

The second reason is that Islamic civilization has not grown up all by itself, but that it was influenced from the outset by the contemporary results of eastern and western knowledge and thought, and mostly by the translations from Greek scientific literature, which came into existence in the IXth century. All these inheritances from earlier times have contributed to the formation of the various kinds of specific Islamic ideology.

In the discussion of these points we therefore shall have to leave the static way of description as followed hitherto and to take to a more historical treatment of our subject.

We still have to restrict ourselves, however, to the first centuries of Islam, when its civilization was being built up by then vital cultural forces. We have already tried to sketch the religious background of this development, and at the same time drawn attention to some accompanying material conditions that gave direction to the cultural currents. In discussing these we have several times had the opportunity

to mention the influence exerted by the cultural spheres originally surrounding the Islamic nucleus, which were ultimately absorbed into the Islamic sphere itself. Those other cultural spheres have been of much importance for the direction of the activity of the Islamic scholars.

With regard to the reception of foreign cultural goods we have to distinguish two periods, the first of which extends until about the end of the VIIIth century, while the beginning of the second period is marked by the translation of a number of Greek works into Arabic. It is difficult to assign a definite end to the second period, but we can say that the reception of foreign cultural goods ended in the course of the Xth century, as the Muhammadan attitude towards life gradually took a definite shape.

The happenings of the first period have in many ways been decisive for the future, but unfortunately we possess very little direct evidence from that period itself and we must infer its importance from the later aspect of things. The general impression is that the "learned men" of Islam were in the first period much more subject to influences from eastern countries than from the west, which is the more remarkable if we consider that the political centre during this period, Damascus, was rather oriented towards the west, while in the second period Bagdad, in the east, had become the seat of the Caliphate.

The eastern countries spoken of are Eastern Syria, or rather Mesopotamia and Babylonia, both forming parts of the Sassanid empire, and Persia. Syria owed the rise of its cultural level to Hellenism and Christianity; its learning was mainly in possession of the monks and the centres of this learning were the great Syrian monasteries. The Syriac language had, already before the Syriac Bible translations had acquired a final redaction, been raised to the rank of a literary language, and Greek works on Christian theology and heresiology had been translated as early as the IVth century. When, in 363, Mesopotamian Nisibin had been definitely conquered by the Persians, there already existed in that town the so-called "School of the Persians" namely the School of the Persian Christians, which at that time constituted the centre of Eastern Christian learning. That same year it was transferred to Edessa, but when the Syrian Christian world was, in the middle of the Vth century, split into Monophysites and Dyophysites or Nestorians, the latter were driven to Persian territory, where they founded the Nestorian Church, the first centre of which again became Nisibin. The Nestorians, mostly protected by the Sassanid kings, as

representing a form of Christianity opposed to that prevailing on the Roman side of the frontier, were able to organize their church and to establish bishoprics in Mesopotamia, Babylonia and Persia proper. The Sassanid capital Seleucia-Ktesiphon, and the ancient country of Elam, in the Middle Ages Khuzistan, became important Christian centres, and the town of Djundē-Shāpūr in the latter region was, towards the middle of the VIth century, made an intellectual centre, when king Khusrau I founded a medical academy and a large hospital there; the bearers of this cultural activity were the Nestorian Christians.

In spite of their political division, the Syrian Christians, or rather the ecclesiastics among them, continued their work much on the same lines, and this also applied to the continued translation of Greek works into Syriac. The Nestorians of the Vth century had already translated works of Aristotle and Plato, together with the authoritative Greek texts of the first Nestorian leaders. In Monophysite Syria the ecclesiastic and physician Sergius of Resh-Aina translated Galenus and some parts of the Aristotelian literature. In the VIIth century again the monk Severus Sebokht of Kinnishre (near Aleppo) introduced Hellenistic geographical and astronomical knowledge into Syriac literature. At the same time Hellenism had continued to exist in its pagan form in Northern Mesopotamia, where the town of Harrān for several centuries under Muhammadan rule remained a centre of astrological and astronomical lore, supported by Greek literary tradition.

So the Syrians had already taken the road that was followed by the Arabs four centuries later, and thus it is no wonder that Syrians were the first guides when Arabic translations began to be made from Greek works belonging to the Hellenistic civilization. There were, however, great differences between the conditions under which the two peoples adopted the Greek tradition, for the Syrians received nearly simultaneously their religion and their intellectual culture from the Hellenistic world, while the Arabs were already in possession of a religious and cultural outlook of their own.

Before the reception of Hellenistic tradition from the Syrians took place, the early Muslims had already assimilated many of the material cultural forms existing in the territory where the Syrian monasteries and bishoprics were established. We have already drawn attention to what the beginning of Islam owed to the Syrians in the domains of religion and language. In Damascus the Arabs found a ready-made apparatus of material civilization, partly Greek and partly local, of

which they naturally enough made use when establishing their rule. As an instance we cite the monetary institutions. The Umayyad caliph 'Abd al-Malik (685-705) was the first to put the currency of his empire in order. It is true that coins struck by Arab emirs at a much earlier time are known, but it was only in Syria that the art of metallurgy had reached a sufficient height to enable a new currency system to be established, which had borrowed both from the Byzantine and the Persian systems.

At the same time a similar material cultural influence came from Egypt. By the papyrus finds we know that the Arabs took over the methods of the Greek administration in the Nile valley, and that Greek and Arabic were used side by side in official documents. But the Arabs had no immediate access to the remains of Hellenistic knowledge as far as it survived in the Christian monasteries.

A remarkable figure among the Arabs of this time is the Umayyad prince Khālid ibn Yazīd (died 704 A.D.), of whom it is reported that he studied alchemy under the direction of a Christian monk from Alexandria. If there is any truth in this report it can hardly be called a scientific occupation, and it is still less credible that Khālid had Greek books on alchemy translated into Arabic. Now Alexandria had, in Hellenistic times, been a centre of alchemistic speculations, and the practical side of these studies, namely the art of making gold, may have induced Khālid to take advantage of such an opportunity. So the art of gold-making must only be considered as one of the crafts with which the Arabs became gradually acquainted in the more civilized milieu of Syria and Egypt. Still it is a significant fact that the interest of Khālid has escaped oblivion and that later Islamic tradition claims him to have been — after the Prophet himself — one of the first Muhammadan students of alchemy.

However, in this period Muhammadan intellectual culture owed more to the Nestorians, among whom Hellenism was at the time a more living force than in the West. The policy of Emperor Justinian indeed had led to the concentration of all scientific studies at the University of Theodosius II in Constantinople. He had closed the schools of Alexandria and Athens and some of the Athenian "philosophers" had even gone to Persia in order to continue their scientific career. It is true that the sources report that they turned away in disgust, but we should be amazed if it had been otherwise, considering the widely divergent conditions of the two learned centres. We may even assume that, from the point of view of Hellenistic culture, Djundē-Shāpūr was

certainly on a lower level; but on the other hand this school stood open to many influences from the East, from Persia and from India. Nestorian activity in Persia must indeed have become mixed with ideas and knowledge proper to the surrounding mental culture. We cannot prove this actually by evidence belonging to the Sassanid period, for our knowledge about Djundē-Shāpūr is very limited, its best known feature being that it produced a series of able physicians for the courts of the Umayyad caliphs and the first Abbasid caliphs. But we can, in a way, reconstruct the type of mental culture that must have prevailed in south-western Persia and the Sassanid court from what is known about the intellectual level reached by the Islamic learned class before they actually became acquainted with the contents of the books of the Greeks. By that time the Muhammadan standard of science had in nearly all branches of knowledge gained an arsenal of conceptions and ideas that were a mixture of western and eastern components. This can be proved by the study of the earliest stage of nearly all scientific activity among the Muslims: mathematics, musical science, chemistry, medicine, astronomy and geography. It is impossible to discern which elements in this knowledge came from the west and which from the east. They are interwoven in such a way that there can only have been a long period of development, during which the amalgamation took place.

We might suppose that this mixture of elements of knowledge is partly due to the early Islamic scholars themselves. They, with their fresh and unprejudiced minds, had been seeking learning and instruction wherever they could find it, especially in the cases where they were in need of scientific information to work out certain precepts of their religious law, such as the division of estates, the determination of the direction of Mecca, and the fixation of the calendar. It is, however, improbable that in such a relatively short time they would have been able to gather quite independently the amount of knowledge that we see in their possession towards the middle of the VIIIth century. Consequently, as we know of the existence of a learned centre in south-western Persia, very near to the residence of the Sassanid kings, we can hardly go wrong if we consider the early Islamic scientific tradition to be a continuation of the earlier tradition in those regions, which were among the first to be conquered by the Muhammadan armies. Ktesiphon was taken in 637 and Djundē-Shāpūr in 638 or 639.

We may even say that the Nestorian-Persian learning only came to

full development through being received by the Muhammadans. Islamic science first flourished in Kufa and Basra, and then in Bagdad, the very scene of pre-Islamic cultural activity in the Sassanid empire. Even the first impulse towards the search for Greek works came from the East and not from the West, a seemingly paradoxical phenomenon, which is, however, not unfamiliar to students of cultural history. Books of Greek learning had already been translated, not only into Syriac, but also into Middle-Persian; some of these, treating of medical, astronomical and geographical matters, were already translated into Arabic in the VIIIth century. As little of these early translations is left, we often can only infer from philological evidence in later Arabic works that the first literary acquaintance with those subjects of study was made through the medium of Syriac or Middle-Persian.

The rapprochement between Christian Syrians and Zoroastrian Persians on the common ground of scientific studies must have met with considerable difficulties, owing to the particular ideologies prevailing among the intellectual classes of both peoples. Both groups were on the whole much more concerned with their own theological problems, as is proved by what is still extant of Syriac and Pahlavi literature. In discussing the problem of how this collaboration was possible, we can for the present only have recourse to guesswork, but we feel inclined to think that the syncretistic attitude of mind, revealed by the appearance of Manichaeism in Babylonia since the IIIrd century, contributed to the collaboration that was to bear such full fruits in Muhammadan times.

Of all the elements in this early learning the Indian is the most elusive. Indian medical art was certainly known at Djundē-Shāpūr, and from India came the knowledge of a number of medicinal drugs and notably of poisons. In astronomy Indian influence is proved by the idea, found among Islamic astronomers as from the IXth century, that there is a "cupola of the earth", situated on the equator on a point that is equally distant from the east and from the west. Later astronomers call it the "cupola of Arin", the name "Arin" having risen from a misreading of the rendering in Arabic characters of the name of the Indian town of Ujjaiyini (known by Ptolemy as Ozene), where there was an observatory, and on the meridian of which the "cupola" was supposed to lie. Arin has survived in the form "Arim" in the astronomical works of Medieval Europe. Further we know from Arabic sources that an Indian astronomer who was at Djundē-Shāpūr was presented by the astronomer Ya'qūb al-Fazārī to caliph al-

Manṣūr (752-755) at Bagdad; this Indian is said to have brought with him an astronomical work called *Sindhind*, which was afterwards translated into Arabic by al-Fazārī's son. In the name *Sindhind* the Sanscrit name *Siddhānta* is to be recognized; and as it is highly improbable that the Arab translator knew Sanscrit, we must suppose that the translation was made from a Persian or a Syriac version.

These are the most outstanding facts relating to Indian influences, but they are enough to make us accept the other statements in Arabic literature about the Indian origin of other items of knowledge, although it is impossible to see by what way and at what time exactly they came to the Muhammadans. This applies, for instance, to the Indian numerals, which became known in Islam in the course of the VIIIth century, were described for the first time about 830 (by al-Khwārizmī) and were in use in the year 873 A.D. (in an Egyptian papyrus), to appear in Europe about a century later. Before the year mentioned we only find Greek and Arabic letters used as numerals in the papyri. But also afterwards the Indian numerals never superseded the older notation system. All things considered, the use of the positional "Arabic" numerals has never come to be a really organic element in the arithmetical and geometrical studies of Muhammadan scholars. It was only in Europe that their usefulness was fully understood. As to the way by which Indian learning came to the Persian cultural centre, we do not even know if it was the northern road by Kabul and Khorasan, or the southern by the ports on the Persian Gulf; but as there is no proof of the existence of important cultural centres in Khorasan before Muhammadan times — with the possible exception of Buddhist Bactria — the theory which accepts the southern route from India to Djundē-Shāpūr is the safer one.

No works of Muhammadan scholars in the domain of the non-Arab sciences are extant from the period before the end of Hārūn al-Rashid's reign, that is to say, the beginning of the ninth century. We only have names of persons who acquired fame with posterity by their practical activity, while some are reported to have composed treatises in Arabic. The bearers of those names are mainly physicians and astrologers. Both categories exercised an art rather than studied a science. They belong to the most ancient type of learned men, who were always to be found at oriental courts. The existence of such courts in the first centuries of Islam, namely the Umayyad court at Damascus and the court of the first Abbasids at Bagdad, has indeed been the chief material condition for the rise of scientific activity.

The first physicians and astronomers at those Islamic courts did not belong to the "learned" class of Islam, but were mainly Christians and Jews, who owed their practical or scientific knowledge to the cultural centres described above. The non-Islamic origin of medical and astrological activity is a feature that has never entirely disappeared throughout the history of Muhammadan civilization. This applies especially to medicine, for nearly everywhere in the Islamic world a considerable contingent of the physicians were always Christians and Jews, so much so that Muhammadan physicians complained of the predilection shown by their co-religionists for Christian and Jewish physicians. Nevertheless it was to Muhammadan scholars that the advance of medical scientific research was due, and the practising Christians and Jews became soon enough followers of Islamic medical learning.

The famous physicians of the first period of Islam belonged to the Christian family of the Bokht-Ishu, and came from the medical school of Djundē-Shāpūr. During several generations the members of this family were court physicians to the Umayyads and the first Abbasid caliphs. They were in possession of Syriac books on medicine and drugs, but of none of the Bokht-Ishu is it known that they translated such works into Arabic. Under caliph al-Ma'mūn (813-833), however, some Christian physicians began to compose Arabic versions of their medical treatises and these at last, having become known in the circles of the Islamic "learned" men, made them desirous of seeking for more information in the still earlier authoritative works they found quoted, namely the Greek works of Galen and others. Among the physicians of this time there is the vague but venerated figure of Djābir ibn Ḥayyān, who for later Islamic generations became a personality of fabulous learning and stupendous literary productivity, and for Medieval Europe, under the name of Geber, the first and at the same time the greatest of Arab alchemists. It is only in recent times that the study of some of the extant works of Djābir has revealed the fact that these cannot have been composed before the middle of the Xth century, owing to their betraying a type of philosophical neo-Platonic speculation which certainly was quite foreign to the period when Djābir is said to have lived, namely the second half of the VIIIth century and the first decades of the IXth. The Greek sources quoted in Djābir's writings must also have been still unknown. Yet there is no reason to reject entirely the historicity of this personage, for several entirely credible events are recorded with

regard to his life. He may really have been an able physician and alchemist, and the undue exaggeration of his importance may be explained by the fact that he was, apparently, a Muhammadan, and therefore a supporter of the Abbasid cause. Though it is improbable that he had derived his alchemistic knowledge from the famous Dja'far al-Šādiq, the seventh imām of the Shī'ites — through whom tradition connects him again with Khālid ibn Yazid —, this supposed connection assigns to Djābir a place among the "learned", and as such he would have been one of the first among them to have studied "non-Arab sciences". Moreover alchemy was certainly practised all the time as an obscure art, as is proved by the strong opposition of al-Kindī (c. 850). It cannot be proved, however, that as early as this there existed handbooks for this art, nor do we know if the Egyptian alchemistic literature, such as the book of Crates, had already reached the physicians of Irak in an Arabic form.

As to the most ancient astrologers and astronomers of whom we hear at the court of the early Abbasid caliphs, they were Persians, such as Nawbakht, or Jews, such as Māshā'allāh. Both persons named belonged to the scholars who in 762, after astronomical observations, determined the plan of the new capital Bagdad. Among these astrologers is also mentioned a man who was probably already a Muslim, namely Ya'qūb al-Fazārī. This scholar may have been of Christian-Syrian extraction; he had connections with Djundē-Shāpūr and presented the Indian astronomer mentioned above at al-Manšūr's court. Al-Fazārī's son is said to have translated into Arabic the book *Sindhind* brought by this Indian, and the father himself is known as the author of a book of astronomical tables, quotations from which are preserved by later authors. Now the word for astronomical tables used in the title of this book is "*zīj*", a Persian word, which is an indication of the origin of the knowledge of al-Fazārī and his colleagues. He is also said to have written on the astronomical instrument called armillary sphere; Māshā'allāh is likewise known as the author of a treatise on the astrolabe. Although it is by no means sure that all these books were originally written in Arabic, there is sufficient proof in all this for the statement that when astrology came to be in demand in Muhammadan court circles, astronomy was already a well developed auxiliary science. This was confirmed not long ago by the discovery that some early Arabic astrological works were translations made from middle-Persian adaptations of Greek treatises, namely the astrology of Vettius Valens and the "*Paranatellonta*" of Teucros. We know,

besides, that several astrological works were translated from the Persian by 'Umar ibn al-Farrukhān (died 815), a Muslim of Persian extraction. The latter is also credited with a translation of Ptolemy's "Quadripartitum", which astrological work was also translated by Abū Yahyā ibn Baṭrīk, a well known astronomer of Christian origin at al-Ma'mūn's court.

Apart from the literary activity of those early astronomers there is also evidence that they were occupied practically. They executed a program of astronomical observations for al-Ma'mūn, which led to the renewed measurement of the length of a geographical latitudinal degree and to the edition of a new "*ẓīdj*" or astronomical tables, known as the "checked tables of al-Ma'mūn". This activity is a symptom of the tendency towards practical investigation and research, by which Islamic science is often distinguished from Hellenistic scientific occupation. These researches were, however, always done within the framework of scientific theories established in pre-Islamic times.

Together with the physicians and the astrologers we must mention the musicians, the physicians of the soul. Their art was closely related to ancient Arabic poetry and like poetry underwent a period of evolution at the court of the Umayyads at Damascus and in the houses of the wealthy Muhammadan emirs. Already in Umayyad times collections of Arabic songs had been made by Yūnus al-Kātib, and during the reign of Hārūn al-Rashīd a great collection of songs was ordered to be made; by this time a rich Arabic terminology of musical technique had long been established. Many foreign influences from Byzantium and from Persia had also begun to affect Arab practice. This had already several times caused the musicians to revise their systems. If musical theory came to be counted among the "non-Arab sciences" this is not only due to the fact that Greek musical theory became known in the IXth century by translations, such as Plato's *Timaeus* and some Aristotelian writings, but also by the reserved attitude of Islamic Law towards musical instruments. We do not know exactly what was the part played by Persian and Syrian musical theory — if there was any — in the beginning of musicological studies; here also, we are told, there were Indian influences.

We know that caliph al-Ma'mūn (815-833) founded his celebrated academy and library called the "*Dār al-Ḥikma*" or "House of Wisdom", thereby encouraging studies that originally lay outside the scope of the Islamic learned class. In fact, as far as we know, the scholars who were connected with this institute were nearly all of

non-Arab extraction. The books contained in its library may have been for the greater part in Syriac and in Persian, some perhaps in Greek; as the work of translation proceeded, however, the Arabic department increased. So we cannot yet consider the "House of Wisdom" as a wholly Islamic institution; there is no evidence that it was connected with a mosque and we may even expect that a good number of the "learned men" of Islam were not favourably disposed towards it, especially those who dwelt in the now provincial towns of Medina, Damascus and al-Fustāt. The Academy type as represented by the "House of Wisdom" — though it was an intermediary institution through which non-Arab learning was introduced into Islamic learned circles — is indeed connected in Muhammadan religious history with the non-orthodox side of religious life. Similar institutions were afterwards founded by the Buyid rulers in Persia in the Xth century and by the Fatimids in Egypt, where the "Dār al-Ḥikma" founded by al-Ḥākim (996-1021) gained particular fame. The dynasties mentioned are known as Shī'ite dynasties. Now in the time of caliph al-Ma'mūn the opposition Sunnism-Shī'ism had not yet acquired the meaning it was to have in later centuries, as Islamic orthodoxy only began to be established during the Xth century. It was still rather a political opposition in which many tendencies coincided. But after the Islamic doctors had at last accepted the non-Arab sciences, and orthodoxy had been established, we witness the rise of the specific Islamic academy in the form of the "Madrasa", the seat of Islamic orthodox knowledge, always connected with the mosque. The first famous madrasas were founded in Seljuk times by the minister Nizām al-Mulk (died 1092) in Bagdad and Nishāpūr. This is the time when Islamic science begins to be consciously opposed to "*falsafa*", i.e. "philosophy", the *failasūf* or philosophers being those scholars who, on the basis of Aristotelian and other philosophical works, had developed tenets that were unacceptable to Islamic orthodoxy.

In al-Ma'mūn's time, however, the strategic positions in theology had not yet been definitely occupied, for a violent struggle was going on between the learned doctors who represented the adherents of the different politico-religious parties. The theological subjects in dispute had been provided by the perplexing political events in the Muhammadan community, and as the Koran and the Tradition about the Prophet did not give an unequivocal answer to the difficulties, the doctors had been filling their theological arsenal with weapons

provided by the non-Islamic religious communities: Christian, Persian and Manichaean. In this way the learned class was equally deeply concerned with the reception of foreign ideas. We have to remember that where religious authority operated the attitude of the "learned" was fixed, but towards the learning introduced from elsewhere they could take a more or less reserved attitude. The last reinforcement of their theological arsenal came from Greek philosophy, after some works of Plato and Aristotle had been translated.

The theologians who, during the IXth century, were trying to defend and to formulate their new creed with dialectical means borrowed from elsewhere are called Mu'tazilites. Their views were too divergent to allow us to speak of a well-defined Mu'tazilite system. The opponents of the first Mu'tazilites were probably at first to be found among the ranks of those who objected against the introduction of foreign learning. Afterwards the orthodox school of al-Ash'ari put itself in opposition against Mu'tazilism, as we shall see, and so to later generations Mu'tazilism had a heterodox sound, the more so as scholars with Shi'ite sympathies were to be found among its adherents. Nevertheless it was the Mu'tazilite "learned men" who first began to take interest in the foreign learning that was brought to their notice through the encouragement given by the caliphian court to physical and astronomical studies. These studies, as has been said, also had practical interest for the application of the legal precepts worked out by the students of the Law.

On the whole we can say that the disposition of the learned Muhammadans towards the newly introduced knowledge was one of earnest search for truth, in conformance with their divinely set task of seeking and spreading knowledge. It is necessary, however, to bear in mind that the theological disputes were continually seething in the background of Muhammadan scientific activity and that theological and legal studies continually crossed the paths of the scientists. We have an excellent opportunity for observing the studies of an early Muhammadan author by the survey of the work of a scholar who stands on the threshold of Islamic scientific activity: Muḥammad ibn Mūsā al-Khwārizmī. His main activity was during al-Ma'mūn's caliphate (813-833); he died some time later. He was of Persian extraction, but belonged to an Islamized family. His life's work was on mathematics and astronomy, and shows that inextricable mixture of eastern and western knowledge which we have alluded to. Al-Khwārizmī is the author of a book on Algebra or, as he — and his

successors — styled it, on the “Art of calculating by means of Integration and Opposition”; in this terminology the word integration has nothing to do with modern integral calculus, but it stands for the Arabic word “*al-djabr*”, from which our “algebra” has been derived. The terms integration and opposition apply to the treatment of the elements of the calculation, which consist not only of simple numerals, but also of quantities considered in their relation to other quantities as being each other’s squares or roots, and further of quantities yet unknown at the beginning of the calculation, which quantities are called “a thing”. The reckoning with these quantities is due to Indian influence, but, just as in the extant Indian handbooks of calculation, no algebraic formulas are used, each problem and its solution being expounded in the sentences of the text. All later algebraic works are composed on the same lines and the absence of a shorter method of notation has certainly been a serious hindrance for the quick advance of algebraic practice. For the solution of problems use is made not only of the arithmetical method, which is only possible if the roots are whole numbers, but also of geometrical figures, and this method — which could draw largely on Greek geometry — has later been used with success for more complicated problems than were tackled by al-Khwārizmī. The mathematician ‘Umar al-Khayyāmī (died c. 1125) for instance knew how to use hyperboles for the solution of equations of the fourth degree. So the progress of the study of geometry proved useful to that of algebra.

What deserves special attention with regard to al-Khwārizmī’s book is that it is obviously meant to be a handbook for practical problems connected with financial transactions, and especially with the division of estates according to testaments and in accordance with the complicated precepts of Muhammadan Law about the legal portion, and similar calculations occurring in other legal transactions. This makes us suppose that the students of the Law had already dealt with these problems and that the study of algebra thus issued from a practical need. The practical character of al-Khwārizmī’s book — and this also applies to the Indian handbooks we know — moreover appears from the fact that as a rule it does not give the reason why a certain problem must be solved in a certain way. There is a minimum of theory and the real meaning of terms as “integration” and “opposition” can only be inferred by a study of the text.

Al-Khwārizmī’s treatise on the Indian numerals is only preserved in a Latin translation; in it he describes those numerals — of which

we have spoken already — but he does not make use of them in his other works. The astronomical work of al-Khwārizmī is best known on account of its containing trigonometrical tables; this work is said to be a new edition of the earlier translation of the Indian work *Sindhind* or *Siddhānta*. The tables in the first place served astrological purposes, and the author himself is known to have practised astrology. He also composed treatises on the astrolabe. In addition al-Khwārizmī's name is connected with a book on "The Image of the Earth" in which the latitudes and longitudes of towns, mountains, seas and rivers are given — in letter numerals — after the Ptolemæic system. But in this book Ptolemy's system has undergone Syrio-Persian influences. This appears from philological observations as well as from the fact that the surface of the known earth is divided into seven climes (*climata*), a conception of astrological origin, which had only played a secondary part in Greek geography, while in Islamic geography and astronomy it became a major concept. Al-Khwārizmī's "Image of the Earth" also shows traces of having passed through an early Islamic medium, because in it are found a certain number of towns that gained importance or came into existence only after the Muhammadan conquest. It appears that the geographical positions of these towns were not added as a result of real astronomical observations, but rather by interpolation on a map. The world map that is apparently described in this book of al-Khwārizmī may have had some connection with an "Image of the World" — by some Arab authors called "*Djughrāfiyā*" — the construction of which had been ordered by caliph al-Ma'mūn.

The discussion of the work of al-Khwārizmī is instructive for the question of how mathematics and astronomy were introduced into Islam. Firstly, al-Khwārizmī is the prototype of the Islamic scholar, who had a very wide field of interest and at the same time was connected with the traditional Islamic sciences by also being the author of a "*Ta'rikh*" or Historical Chronicle. Secondly, the variegated matter presented by our author in the abovementioned works is for the greater part of pre-Islamic origin, the merit of al-Khwārizmī being that he presented it in an Arabic literary form. Thirdly, we observe in his books an adaptation of the material to the practical legal needs of the Muhammadan community; one important application of astronomy to Islamic needs, namely the determination of the "*qibla*" or direction of Mecca, is only found in later authors but it certainly was practised earlier. And fourthly, al-Khwārizmī's writings contain several

conceptions of pre-Islamic origin (the central position of the earth in the universe; the seven climes) that have been maintained throughout the centuries of scientific activity of the Muhammadans.

In the domain of medicine, alchemy, chemistry, and physical sciences the situation was the same, as may be inferred from the course taken by these studies. But since the works of Djābir ibn Ḥayyān can no more be used as evidence of early times, we are not in an equally favourable position for tracing the history of these sciences.

It is only after the reign of al-Ma'mūn that the direct introduction of Greek science began to bear its first fruits in Bagdad, and that we make the acquaintance of great Islamic scholars comparable to those of the Renaissance in Europe. It may be clear from the preceding pages how the desire of becoming better acquainted with the Greek sources was aroused. It is not quite clear yet when exactly translations from the Greek began to be made. Names of translators are already known from the time of Harūn al-Rashīd (died 809) but in the first place it is not sure whether these translations were already made from the Greek, or from Syriac and Persian; in the second place, there are some important works that are said to have been translated in the beginning, and again at the end of the century. Euclid for example is reported to have been translated by al-Ḥadīdjādī ibn Yūsuf under Hārūn al-Rashīd, and again by Ishāk ibn Ḥunain (died 910), and Ptolemy's "Quadripartitum" was, according to one source, translated by Abū Yahyā ibn Baṭrīk, also under al-Rashīd, and again by Ḥunain ibn Ishāk (died 873). Now some works have indeed been twice translated, such as Dioscurides' "Materia Medica", but in the latter case time and place were very different: once in Bagdad in the early IXth century and once in Spain in the middle of the Xth century. In addition we possess quite a number of Arabic translations the authors of which are unknown.

What we know in general about these translators is that they were not Muhammadans, but mainly Christians, the most famous among them being the physician Ḥunain ibn Ishāk (810-873), who translated nearly all the works of Galen and many Platonic and Aristotelian writings with their neo-Platonic commentaries. A remarkable fact about the Syrian translators is that they also made a great many translations from Greek into Syriac. It would seem that the Syrian Christian world was still in a position to rivalize with the Arab Muhammadan world. The latter was, however, much better qualified to make the newly acquired knowledge profitable. The scientific

activity of the Syrian monks, it is true, never ceased entirely, but apart from its never leading to independent research, it came ever more under Islamic influence, as may be clearly seen from the work of the last great representative of Syrian scholarship, Barhebraeus (1226-1286). It is generally recognized, moreover, that the Arabic translations of Greek works are much better and clearer than the Syriac translations; we must ascribe this to the superior qualities of the Arabic language, of which we have already spoken.

One very famous translator was Thābit ibn Qurra (836-901). This scholar came from the already mentioned Syrian town of Ḥarrān, where Hellenistic traditions had persisted even in religious matters. Thābit was a good Greek scholar and translated Greek mathematical and astronomical works. He also wrote original Arabic treatises on special subjects dealt with in the Greek works translated by him, and as far as we can judge from what is extant he was able to further by his own research the study of mathematical problems already dealt with by Ptolemy after Menelaus and Apollonius of Perga. As the translator of a scientific work does actually do creative work, if he understands his sources properly and if he moreover has to find a terminology in a less well equipped language, it is only natural that he should to a certain extent be able to make an independent study of the various problems. The same kind of literary activity was also shown by Ḥunain ibn Ishāq, who composed several Arabic treatises on medical subjects.

An intermediary position between the non-Muhammadan translators and the true Islamic scholars is occupied by the newly converted Muslims of this time. We refer to 'Alī ibn Rabbān al-Ṭabari (died shortly after 855), a converted Christian from Persia, who besides writing an apology of the Islamic creed for Christians, also composed one of the earliest general medical treatises in Arabic.

Much more deserving of our interest are, however, the Muhammadan scholars who, by patronizing the translators and their activity, and also by their own investigations and researches, were the real promoters of scientific activity in Islam. In doing this they on the one hand adopted the attitude of the caliphs al-Ma'mūn and al-Mutawakkil (847-861) — who also founded an academy called "Dār al-'Ilm", i.e. "House of Learning" — while on the other, as representatives of Muhammadan traditional "learning", they introduced the non-Arab sciences into the field of interest of Islamic knowledge. A prominent place among them is occupied by al-Kindī (died 873), who

was at the same time theologian, philosopher, astrologer, astronomer, geographer, physicist and musicologist. He was a Mu'tazilite theologian, which accounts for his sympathetic attitude towards foreign science. It is improbable that he knew Greek himself, but he greatly encouraged the making of translations, showing particular interest in what became known of the Aristotelian writings. By adding these newly acquired conceptions to his fundamental theological views he stands at the beginning of the Islamic scholastic type of philosophical research. After him no Islamic theologian could leave unnoticed the philosophical views of the Greeks. Al-Kindi was also of an inquisitive mind, and wanted to test the soundness of the newly acquired knowledge. He is known to have made astronomical observations in connection with his practice of astrology, in which he was a recognized master. His inquiring and at the same time synthetic mind appears also from his treatises on optics, on the cause of the blue colour of heaven and on ebb and flood, and moreover from the interest with which he describes in detail industrial techniques, such as the fabrication of swords. He also extended his interest to medicine, but here, as it seems, his attitude was chiefly theoretical. He is also said to have strongly opposed the belief of the alchemists that precious metals could be made by human activity. From what is extant we cannot reconstruct a complete picture of al-Kindi's life work; we see, however, the enormous influence he has exerted on later generations of Islamic scholars, who followed his footsteps in their way of treating subjects of scientific interest. We also see that by his attitude he brought about protests and renewed investigations, as in the case of al-Razi, who tried to prove in opposition to al-Kindi the soundness of alchemistic beliefs.

I believe that we may observe in al-Kindi the synthesis of the characteristics of Islamic scholars. On the firm base of their traditional and a-priori theological outlook they sought for knowledge with which to complete their view of the world. In searching for this knowledge they showed great veneration for what the pre-Islamic "ancients" had written in "books", and they were ready to take the trouble to check the information thus gained, and subsequently to continue these investigations on their own, and to the same purpose. We are not yet justified in calling this attitude "pure science", although with many Islamic scholars there was certainly present the element of unprejudiced inquisitiveness. But science remained for them always a means; this is well expressed for us in the introductions of many

Muhammadian books on scientific subjects and in the later encyclopedias of science, where one of the questions treated by the authors is always the usefulness of a certain science. This attitude is also attested by the practical side of the work of most scholars. The Islamic scholars fully grasped the intricate problems posed and solved by Greek mathematicians, and they followed them on the beaten path, but they were not seldom able to complete and to simplify the results of the "ancients". On the other hand they were more ready than the Greeks to make experimental observations in such sciences as astronomy, chemistry and medicine. But as they did not make any noticeable advance in technology, the results of their experiments were not striking enough to make them seek new ways.

In the "philosopher" al-Kindī the experimental sense was not so highly developed as in the three brothers known as the "sons of Mūsā" who lived in Bagdad during the middle of the IXth century and were younger contemporaries of al-Kindī. These Muhammadian scholars were very wealthy and are known as the patrons of the famous translators Ḥunain ibn Ishāq and Thābit ibn Qurra. They do not seem to have been interested in theological problems, which may account for their favour with caliph al-Mutawakkil. By their vast astronomical, mathematical, geometrical and technical knowledge they were able to render remarkable services to the caliph in the practice of astrology and the execution of technical works. They had no immediate interest in medicine, but, by their patronizing Ḥunain ibn Ishāq, the translation of the most important Greek medical treatises is an indirect consequence of their activity. Their technical ability implied the construction of astrolabes and other instruments for astronomical observations, of an ingenious kind of balance called "*karastūn*", which is described by Thābit ibn Qurra, of instruments of war and of automata and apparatuses resembling the toy instruments described in the "Pneumatica" of Hero of Alexandria; their construction never led to a systematic study of mechanical laws nor to the invention of real machines that could replace manual labour.

One of the reasons for this lack of development may have been the nearly total absence of the use of wheels — though these are found in irrigation works — but on the other hand the economic structure of the Islamic empire was such that no industry was in real need of a search for more efficient methods than those practised since centuries. The industrial workers did not constitute a class that was economically free; everywhere the craftsmen in the towns were under

close government control and their corporate organization in guilds — which during the Xth century became a kind of esoteric religious fraternities — only increased their lack of interest in gathering capital. Similarly the requirements for trade and travel never went beyond the traditional lines. Seafaring had developed a selfsufficient tradition of its own and, as to overland travel, the age-old reciprocal relations between the townspeople and the nomads of the plains — who greatly profited from the caravan trade and from the pilgrim traffic — excluded the idea of bringing the town oases nearer to each other by swifter locomotion. Such a development would, in addition, have strengthened unduly the power of the rulers and this, as may be seen from the most recent developments in Europe, was not in the interest of trade.

We have been able to trace the conditions of the first period of scientific activity in Bagdad and Irak only by a few outstanding instances. Names of other scholars — such as the great astronomer al-Battānī (d. 929) — should have been mentioned, but from what has been said it may be clear why it was in those particular surroundings and in that particular period that the foundations of scientific work in Islam were laid. Scientific activity was mainly receptive, though in a way a synthesis was reached between the pre-Islamic oriental form and Hellenistic forms which had become better known through translations. In the beginning of the IXth century political conditions had been highly favourable to this development; it continued during the following period of political troubles, but at the close of the century Bagdad and Irak ceased to be the leading intellectual centre. It was succeeded in the Xth century by new centres in the East and in the West, and it was particularly in the East that Islamic science was now to celebrate its highest triumphs.

In Irak itself the crisis of the theological movement was perhaps the chief cause of the change of scientific outlook. This crisis is connected with the name of al-Ash'arī who worked in Basra and died in Bagdad in 935. It was due to his activity that the opposition of wide circles of the Muhammadan "learned men" against Mu'tazilism could take a literary form, or in other words, that a new theology, the Ash'arite theology, afterwards known as the orthodox theology, took the place of the Mu'tazilite theologies. The theology of al-Ash'arī represents religious views that had been living all the time in the circles attached to tradition, but that had been temporarily relegated to the background by the brilliance of the Mu'tazilites. From this point of

view orthodoxy can be said to be conservative and less well disposed towards the influence of foreign learning and foreign philosophy. Al-Ash'ari, however, in defending the orthodox views, built up a theological system that also included conceptions borrowed from the Greek philosophical systems. Recent investigations of his writings have shown that Greek philosophical conceptions, such as the atomistic theory, were only taken over outwardly and in a way that clearly proves a lack of understanding for the real purport of Greek thought. This phenomenon, namely the lack of integration when the results of Greek thought and knowledge were grafted onto previously more or less established theological or scientific systems in Islam, a procedure by which the original systems became unrecognizable, is, as students of Islamic philosophy tell us, most conspicuous in philosophy; the well-known philosopher al-Fārābī (died 950) was convinced that Aristotelianism and Platonism could be united in one and the same philosophical system. In other non-Arab sciences the knowledge of the Greeks had met with a much better understanding, notably in mathematics. Still in such a concrete science as geography the same inconsistency between the ancient conception of the seven climes and Ptolemaic mathematical geography may be observed in the works of those authors who, like the famous al-Idrīsī (1156), tried to combine both into one system.

Parallel with the fixation of orthodox theology there appeared in Irak a philosophical movement that was equally unfavourable to the free development of unprejudiced scientific research. We know this movement through the encyclopedic writings of the so-called "Brethren of Purity" or "Brethren of Basra". These writings were composed about 950. In the fifty-two treatises of which they consist all the sciences known at that time are placed in a general scheme. Its system, as far as there is any system, is mainly influenced by neo-Platonic views, which consider the world as the result of a series of emanations from the divine unity. This philosophy is outwardly Islamic in that it makes use of allegorical interpretations of the Koran. In its application to the sciences this system points to the hidden meaning of connections between various phenomena in nature, as expressed in numbers. On the whole the theories of the "Brethren of Purity" are scientifically less important than the work of al-Kindī and his contemporaries.

It is in the writings of the "Brethren" that we find expounded those notions of physics — derived mainly from Aristotelianism —

about the principles of medicine and alchemy, which are characteristic of the ideology of these and related sciences throughout the Islamic period. These notions were known already to al-Kindī in the previous century, and they are set forth in the introduction to al-Ṭabarī's medical work, but in Islamic scientific history they are particularly associated with the heterodox conceptions in the writings of the "Brethren". These conceptions were somewhat later designated by the orthodox as "*falsafa*". They are based on the doctrine of the four primal Elements: earth, water, air, fire, and the four natural Properties: heat, cold, dryness and moisture, and on the interrelation of those conceptions. All the great medical works of Islamic literature discuss these philosophical and physical foundations of medical science in their introductory chapters. It is the same with the alchemistic theories about the origin of metals and other minerals and the possibility of their being transmuted by human operations, such as we find in the treatises that go under the name of Djābir ibn Ḥayyān. A study of some of these treatises has revealed a close connection with the views of the "Brethren of Purity". Though these views only began to be set down in writing in the IXth century, the actual discoveries and the advance of knowledge in the domain of chemistry, such as the preparation of nitric acid as described in one of Djābir's works, may very well be the result of the experiments of earlier workers.

Thus we see that the active search for knowledge, which had set in in Irak during the reigns and under the auspices of the first Abbasid caliphs, had at first resulted in an intensive collaboration of non-Muslim and Muslim scholars alike, and finally in a more or less organic assimilation by the Muslim scholars themselves. This assimilation on the one hand led to Islamic orthodoxy and on the other towards a gradually developing non-orthodox system of thought after the fashion of the ideology of the "Brethren of Purity". We see, moreover, that medicine and physical sciences, notably alchemy, by the nature of their object yielded much more to philosophical speculations than the mathematical sciences, such as astronomy, chronology, geometry and the like.

Whilst the foundations of Islamic science and scientific ideology were laid in Irak, the scene of their further development was mainly in the countries which, in the course of the Xth century, had become politically independent of the caliphate, that is, roughly speaking, Persia and Egypt. Spain, too, where an Umayyad dynasty had since 752

succeeded in maintaining its independence against internal and external enemies, became in the Xth century a secondary centre of Islamic learning. In all those regions there had been from the beginning representatives of the ancient Islamic "learned" class, but their cultural condition had remained provincial, Bagdad being the leading centre. The original uniform religious tradition among the "learned" had, however, persisted and had been greatly favoured by the at one time strong military organization of the Islamic Imperium. On account of the similarity of geographical features, travelling conditions were nearly everywhere much the same. During the great troubles that had shaken the Empire in the first centuries of Islam the Islamic religious leaders even in remote provinces had had a say in affairs. These provinces, however, remained a fertile soil for the development of various religious views much longer than Irak and were later than Irak confronted with the problem of choosing between orthodoxy and heterodoxy. And it was just these circumstances that made the mental atmosphere in the provincial areas more fit for the pursuit of scientific research. Yet the cultural ties were not loosened when the power of the caliphate began to wane and when local governors began to reign independently. In other words: there had sprung into existence a general Islamic civilization, kept together by a common religious type, by a common literary language and by common conditions of material and social life, in the East and in the West alike. Under these conditions scholars, with their knowledge and their books, could travel widely in the Islamic world, finding colleagues in every important town, with whom they could interchange their views on a common basis of understanding, and often also liberal princes who were ready to further their studies materially.

The existence of autocratic rulers and their courts was indeed a condition favourable to the pursuit of many branches of science, because these rulers could provide, in their capitals, for large libraries and scientific institutes after the pattern of the "House of Wisdom" of al-Ma'mūn and patronize the foundation of hospitals for the physicians and of observatories for the astrologers and astronomers. In this, these rulers followed the example set by the Abbasid caliphs.

In Persia conditions were particularly favourable in this regard, although Persia was, all through the X-XIth centuries, divided between a number of dynasties: the Sāmānids in Khorasan and Transoxania, the different Būyid dynasties in Western Persia, and minor dynasties, such as the Ziyārids of Tabaristan; at the end of the Xth

century the Ghaznawids entered on the scene. But the political division was at this time far from being an obstacle to scientific activity. The rulers not only rivalled in military conquest but also in the encouragement of sciences, and thus the Sāmānid residences in Nishāpūr and Samarkand, the Būyid residences al-Rayy, Iṣfahān and Shīrāz, and soon the residence of Ghazna became important centres of learning, where students were always welcome and which could rival with Bagdad.

The first regions to develop a cultural life of their own in the eastern provinces were Khorasan and Transoxania under the Samanids (892-999). Their territory had formerly been the scene of the tribal struggles of the Arab military colonists and the preaching of various religious doctrines. Nestorian Christian influence had been weaker here, and as late as Islamic times Buddhism had been a cultural and religious factor in eastern Khorasan. Since the time of al-Ma'mūn, moreover, the cities of Khorasan had been the scene of the renaissance of Persian national feeling, giving raise to the beginnings of New-Persian literature.

The Islamic scholars who worked in the states of the Samanid rulers had studied in Bagdad, but while the Persians of former generations had generally remained in that great centre, they now as a rule returned to their native country. A typical early representative of these Khorasanian Persians is Abū Zaid al-Balkhī (died 934), who, in his youth, had been a pupil of al-Kindī and later enjoyed the favour of vizirs and courtiers of the Samanid state. Al-Balkhī is an instance of the all-round Islamic scholar, as the long list of his works attests. As a theologian he had in his youth held the Mu'tazilite views of al-Kindī and his milieu; in middle age, in Khorasan, he embraced orthodox theology, although by doing so he lost the favour of several of his patrons. As a scientist al-Balkhī stood on the astronomical mathematical side. His influence on the propagation of knowledge in his time and his environment must have been considerable. What is most conspicuous for us from his known writings is his geographical or rather his cartographical work. Al-Balkhī is indeed the first editor of a number of geographical maps, which are undoubtedly of Persian origin and which have given rise to an important geographical literature. The remarkable fact about this literature is that it consciously disregards the Ptolemaic astronomical and geographical methods introduced by the Bagdad astronomers. Consequently this new geographical literature became the purest expression of Islamic selfsuffi-

ciency in that it was only concerned with the actual Muhammadan countries, thereby symbolizing the Islamocentric course which the intellectual culture of Islam was henceforth increasingly to take.

A Persian contemporary of al-Balkhī was al-Rāzī (died probably 923) from the town of al-Rayy. He was famous in the first place as a physician and as the composer of the enormous thesaurus of medical knowledge called "al-Ḥawī". Al-Rāzī spent part of his life in Bagdad as physician-in-chief to the great hospital in that city, but afterwards returned to his native town al-Rayy; his scientific attitude was related to that of his contemporaries, the "Brethren of Purity"; for that reason he was also one of the chief champions of the alchemistic theory of the mutability of metals. From our modern point of view the chief merit of al-Rāzī is the remarkable chemical observations we find in his work; this important feature, which is proper to most Islamic medical works, is due to the experimenting spirit that animated the scholars of his time.

Thus, in the Xth century Persia with Transoxania became the scene of the activity of many scholars among whom we could only mention the outstanding figures here. Scientific study had by this time come to be an essential element in the social structure of Islam. The mathematicians composed handbooks for the administrative and judicial authorities; the astronomers gave the rules for the calculation of the "*kibla*" and the times of the ritual prayer, while the enormous importance of an extensive knowledge of medicine had become self-evident. The great political leaders themselves consecrated their hours of leisure to scientific subjects. An Arabic historical source, in giving a description of the personality of Ibn al-'Amīd, who from 940 to 970 was vizier to one of the Būyid rulers at al-Rayy, begins by describing this remarkable man's proficiency in poetry and writing, in geometry and mathematics, and in philosophy. It then continues:¹⁾ "Such was his proficiency in recognized studies and sciences; in addition he was sole master of the secrets of certain obscure sciences which no one professes, such as mechanics, requiring the most abstruse knowledge, of geometry and physics, the science of abnormal motions, the dragging of heavy weights, and of centres of gravity, including the execution of many operations which the ancients found impossible, the fabrication of wonderful engines for the storming of fortresses, stratagems

¹⁾ The concluding portion of the *Experiences of the Nations* by Miskawaih, translated from the Arabic by D. S. Margoliouth, vol. II, Oxford 1921, p. 297-298.

against strongholds and stratagems in campaigns, the adoption of wonderful weapons, such as arrows which could permeate a vast space and produce remarkable effects, mirrors which burned a very long way off, unheard-of slight of hand, knowledge of the refinements of the art of modelling and ingenuity in the application of it". The last words point to the vizir's skill in the plastic arts — as far as these went in an Islamic milieu — and the author gives some instances of his ability in this domain; his entire description reveals the personality of Ibn al-'Amīd as a true Islamic counterpart of Leonardo da Vinci.

Towards the end of the Xth century the two greatest scholars of Islam appear in Iran: al-Bīrūnī (973-1048) and Ibn Sīnā (Avicenna; 980-1037). Both of them were born on the other side of the Oxus, where they had a thorough instruction in the religious and the Arab sciences. Both subsequently came to eastern Persia, where at that time the political hegemony was passing from the Samanids to the Ghaznavids, who had their residence in Ghazna, south of Kabul. During the same time orthodoxy had been more or less established in Khorasan, while in western Persia a considerable part of the leading classes stuck to the less well defined Shī'ite speculative theological views. Now we see that al-Bīrūnī, the astrologer, astronomer and mathematician, turns eastward to live at the court of the Ghaznavid sultan Maḥmūd (999-1030), while Ibn Sīnā, the physician and philosopher, turns to the west, working at the courts of various rulers in Djurdjān, al-Rayy, Hamadān, Iṣfahān. Each one of them may be considered as standing for one of the two great currents that dominated Islamic mental and scientific activity. According to an anecdote recorded by a source of the XIIth century, Ibn Sīnā and al-Bīrūnī belonged originally to the scholars assembled about 1100 at the court of the ruler of Khwārizm (delta region of the Oxus), when this prince was summoned by the powerful sultan Maḥmūd to send his scholars to the Ghazna court. The prince of Khwārizm could not but comply with the imperious demand, but, while al-Bīrūnī with some others made his way to the sultan, Ibn Sīnā escaped during the journey, and Maḥmūd's endeavours to lay hands upon him (by having the portrait of Ibn Sīnā circulated) remained fruitless.

This anecdote squares well with what actually happened. Ibn Sīnā was in the West when he wrote his enormous "Canon of Medicine", following and even surpassing al-Rāzī. One of the curative methods described by him in this work comes very near to what we would call psycho-analysis, namely the method of finding a psychic trauma in a

malady where the cause is otherwise not to be found (especially love-sickness), by attentively observing the patient's physical reactions (pulse) in the course of a conversation on different subjects. There are several evidences that this method was practised with success in the following centuries. It reminds one of the name of Ibn Sīnā's great philosophical work, called "The Curing of the Soul", which crowns the philosophical and metaphysical speculations spoken of in connection with the "Brethren of Purity". His philosophical attitude almost made him exceed the limits of what could be endured by Islamic theology, however free in its interpretation of the traditional texts. Ibn Sīnā's reply to remonstrances on this score is contained in one of his Persian aphorisms, where he says: "If there is in the world a man like me and that man should not be a Muslim, then there is no Muslim at all in the entire world".

As a good all-round Muhammadan scholar Ibn Sīnā also dealt with astronomy and mathematical sciences, which matters had also to be treated in his philosophical work. It also includes a discussion of the origin of minerals and other substances after the Aristotelian views; his observations and deductions make him, however, a strong opponent of the transmutation theory of the alchemists.

In the meantime Al-Bīrūnī in the east was working at his voluminous astronomical work and conversing with the scholars of India brought nearer to Islam by the conquests of Sultan Maḥmūd. We have already discussed the unprejudiced attitude he took with regard to the views of the Hindu scholars, by which he too crossed the boundary of the Islamic outlook. Al-Bīrūnī's genius led him to devise new schemes, such as instruments for astronomical observation and methods of geographical projection, but he does not seem to have had the opportunity of testing their practical use, for which the inadequacy of technical conditions must have been one of the principal reasons.

The Islamic world was still sufficiently a cultural whole at that time to allow the works of Ibn Sīnā and al-Bīrūnī to become known in the West. The medical treatise of Ibn Sīnā became especially celebrated throughout the Muhammadan countries and beyond and raised him in popular belief to the rank of a super-human wizard.

In the XIth century political conditions in Persia took a turn that was at length to prove fatal to the scientific activity of Muhammadan scholars. In the middle of the century the Turkish invasion under the Seldjuk rulers took place, bringing about devastation of towns and of libraries and scientific institutes, a devastation that was later to be

repeated even more thoroughly by the Mongols and by the armies of Timur. The Seldjuk rulers themselves were soon willing enough to patronize scholars and science; the Seldjukid Malikshāh (1072-1092) is known to have encouraged astronomical studies by his calendar reform, while the great Seldjuk minister Nizām al-Mulk was the founder of a new type of institute of learning called "madrasa". These madrasas, as has been said above, were much more intimately associated with the mosques and were meant to be centres for the propagation of Islamic learning after the then prevailing orthodox fashion. Therefore in Persia also, a bad time for the "philosophers" had come, and it is not to be wondered at that henceforward speculative medical studies could not flourish. But the mathematical sciences too were less diligently cultivated. The mathematician and astronomer 'Umar al-Khayyāmī, who was one of the scholars to work out the calendar reform of Malikshāh and who, just on account of his scientific aloofness from the Islamic "learned" attitude, may in his leisure hours have been guilty of at least some of the agnostic and sceptical quatrains attributed to him, complains, in the introduction to his treatise on algebra, of the perplexing decrease of the number of true men of learning in his time. "Most of those", he says, "who take on the appearance of scholars in our time, obscure the truth by untruthfulness; they do not come beyond the limits of deceit and vain ostentation of science, using the little they know of science only for base material purposes". Now if a man like 'Umar al-Khayyāmī, who shows the method of solving algebraic equations of the fourth degree by geometrical means, speaks of Truth, we must understand this as conceived in the spirit of earnest research which had animated the Bagdad scholars of the IXth century and their disciples. In 'Umar's time, however, another conception of Truth was making its way into the minds of the Islamic spiritual leaders, a conception equally venerable in itself, but fatal to the continuation of such research.

This new conception of Truth had developed in the circles of the Muhammadan mystics. The mystics in earlier times had had much in common with the opinions of Shi'ite heterodox circles; mystical, theological and cosmological systems had been built up with the aid of the Neo-Platonic ideas we meet with in the writings of the "Brethren of Basra" and the "philosophers". For the mystics Truth was something existing beyond this material world, something that could not be attained by the research of the intellect but by spiritual experience.

In their faltering allegorical language, Truth is the deity itself. Many Muhammadans of all social classes had enlisted in the mystical search of Truth, and Islamic orthodoxy, after having combated mysticism in vain, had been obliged at length to make a truce and to admit mysticism in a mitigated form into its fortress. This was notably the work of al-Ghazālī, who worked precisely in the time of 'Umar al-Khayyāmī and lived for a great part of his life in Khorasan, which was also the scene of 'Umar's scientific activity. Al-Ghazālī's influence has been immense up to the present day. He has given a spiritual and ethical background to all aspects of religious and cultural life in Islam. His system implied an outspoken denouncement of the "philosophers", but also an unspoken discouragement of those "learned men" who wanted to search for more scientific Truth. For the learned were henceforward permitted to follow the esoteric path that was leading in a direction opposed to the road where observation of exoteric facts was possible.

Eastern Islam has since al-Ghazālī's time entered into closer connection with the civilizations of India and China. But Islamic culture had by this time finally taken a defensive attitude, strongly protected by its own vast cultural arsenal and unconscious of the need of new additions to it. It is due to these circumstances that the promising beginnings of intercourse between Muhammadans and Indians in al-Bīrūnī's time was not to bear fruit. Nor were there conditions in India or in China which, as in western Europe, permitted the reception of the precious goods stored up by the best among the "learned" of Islam.

The Muhammadan civilization never could have reached its high standard without the achievements of the eastern Muhammadan scholars. It is by way of the West, however, that its scientific values were ultimately destined to become a living factor in the cultural renaissance of Western Europe.

About 900 A.D. conditions in Western Islam were much the same as in the East. Spain, Morocco and Tunisia had at an early time become politically independent of the caliphate, while Egypt was for a long time in a state of political transition until the Fatimid dynasty was established there in 969. Syria generally shared the destinies of Egypt. In all the countries mentioned the Muhammadan "learned men" had done their work well during the first centuries of Islam. One of the greatest authorities of Islamic legal knowledge, al-Shāfi'ī, lived in Egypt's capital al-Fustāt, where he died in 820. Similarly a

number of influential "learned men" are known in North Africa and Spain in the VIIIth and IXth centuries. By them the Islamic religious tradition was not only linked up with Bagdad but also directly with Medina and Mecca. But in the same regions there existed since early times the germs of divergent religious opinions. It is not yet quite clear in how far the originally well-established forms of Christianity contributed to the specific forms of western Islam; it is historically clear, however, that the political events in Syria and Irak profoundly influenced things in the West, in the first place by spreading the more or less anarchistic heresy of the Khāridjites among the Berbers in North Africa, and in the second place by establishing a number of independent dynasties, some of whom were Khāridjite and some, the more important ones, Shi'ite, namely the Idrisids of Morocco and the Fatimids of Tunisia, who came to power in 903.

Spain, under the Umayyads, finally came to uphold the more orthodox tendencies, a development to which the constant contact with Spanish Christendom and the necessity of theological self-defence were conducive. Soon afterwards North Africa, Egypt and Syria too were incorporated in the orthodox catholicity, and for much the same reasons. In the West there was no earlier civilisation, like the Persian in the East, for which incorporation in Islam was the only means of saving some of its traditions. Christianity, as long as it remained Christianity, never entirely lost its connection with the Christian world north of the Mediterranean. Still there is one feature here which is much less conspicuous in the East, viz. that in the West the Jewish element greatly influenced the intellectual rise of Islam, a part which it continued to play in the transmission of Islamic learning to Europe.

In the Islamic West the beginnings of scientific activity were also connected with the existence of courts and liberal rulers. The art of using Arabic for literary purposes had already spread to Africa and Spain in the IXth century, but it was only after the dynasties of the Fatimids and the Umayyads of Spain were well established that scientific works were produced in the West. The Fatimid court of al-Kairawān in Tunisia harboured the Egyptian Jewish physician Isaac Judaeus (855-955), who wrote a number of medical treatises in Arabic and had well-known Muhammadan disciples. His exact relations with the Bagdad school of physicians are not yet clearly established. In the case of the mathematical and astronomical sciences in the West the connection with Irak is quite clear; these sciences only begin to be practised after the conquest of Egypt by the Fatimids.

The greatest among the astronomers there was Ibn al-Haitham (Alhazen; 965-1039), who originally came from Basra. He rendered many singular services to his patrons the Fatimids, though he failed in his attempts to regulate the course of Nile. Ibn al-Haitham's astronomical, mathematical and physical achievements, as we know them by his writings, were hardly less than those of his great contemporary al-Bīrūnī. Conditions for scientific work at the Fatimid court in his day were much the same as under the early Abbasids at Bagdad and the Buyids of Persia; the Fatimid caliph al-Ḥākim (996-1021) had likewise founded a "House of Wisdom" in his capital Cairo. The name of this institution indicates that it adopted the same relatively free attitude towards research as had prevailed in those earlier surroundings. Still the "philosophical" aspect of science did not so much prevail. There certainly were in Syria, Egypt and North Africa able medical writers, several of whom have become famous, but this kind of study was destined only to be taken up later in Spain, after Avicenna's writings had become known there.

Spain only reached the cultural standard of the East in the Xth century, under the reign of 'Abd al-Raḥmān III (912-976). In the beginning of this caliph's successful reign there still lived Ibn Masarra of Cordova (883-931), who was one of the first representatives in Spain of the non-orthodox religious and philosophical tradition of Bagdad. His school had not been able to maintain his views against the orthodoxy, or rather traditionalism, that prevailed in the country; his books were burned. Yet the search for unprejudiced knowledge was awakening there too, and one of its first propagators was the Jewish minister Khasdai ibn Shabrut, who had even made a second translation into Arabic of the "Materia Medica" of Dioscorides, a rare instance of a translation not made in Irak. We know, however, of few great Islamic scholars in this period. Maslama al-Madjrīṭī (c. 930-1007) became famous; he seems to have been the first to pursue independent astronomical studies in Spain, after having become acquainted with the translated and original Arabic text-books on his journeys in the East. Astronomical and mathematical studies were the most likely to be tolerated in the Spain of those times. After al-Madjrīṭī there was actually a succession of Spanish astronomers, some of whom, like Ibn al-Zarkāla (Arzachel; second half of the XIth century), have acquired fame by translation and adaptation at the time of Alphonso the Wise. Al-Madjrīṭī's name is also connected with two other works, which, though perhaps not his own compositions,

may be attributed to his school. Curiously enough one of these treatises deals with the "science" of magic or talismans, while the other one is concerned with alchemy and chemistry. This shows that Islamic intellectual society in Spain was equally interested in less orthodox studies; the chemical work, which already refers to al-Rāzī and Avicenna, proves the author's experimental knowledge of many important chemical facts.

The XIth century was for Spain a period of political division, when at least sixteen petty dynasties were reigning over its Islamic territory. This proved to be a favourable period for Islamic scientists of all descriptions. The many libraries were filled with copies of the Arabic works of the great scholars of the East. Spanish physicians also began to earn fame by their works, such as the four generations of the family of the Banū Zuhr. It was a kind of Arabic renaissance in the West; it did not lead to very original scientific activities, but it brought these studies to a level from which, in the following century, bridges could be laid towards Christian Europe. At the same time the Islamic culture of Spain began to extend to Morocco, where conditions for a more independent development of sciences had always been unfavourable. Politically, however, the balance of power turned in another direction. It was from Morocco that at the end of the XIth century the Almoravids came forth, who soon became masters of Muslim Spain, to be replaced towards the middle of the XIIth century by the Almohads. Both dynasties had their origin in sectarian religious movements among the Berbers; they highly favoured the ancient class of learned theologians and traditionalists, but they showed less understanding for the non-religious sciences. Thus the new form of Spanish-Islamic civilization found itself between the theological rigourism from the South and the continually increasing political threat from the North. And these circumstances put the Spanish Muhammadans in much the same plight as the Spanish Jews, who, in this same period, had developed a brilliant culture of their own, with a literature in Hebrew, but strongly dependent on Islamic civilization itself. Like the Muhammadans, the Jews had been extending the benefit of their culture to their coreligionists in North Africa and Egypt.

Now the XIIth century produced in Spain a number of Muhammadan scholars who are mainly known as "philosophers", but who were for the most part all-round scholars of the true Islamic type; they possessed and cultivated the knowledge accumulated during the past

centuries in all Muhammadan countries. They were at the same time physicians and astronomers: Ibn Bādjja (Avempace; died 1138), Ibn Zuhīr (d. 1162), Ibn Ṭufayl (d. 1185), al-Bitrūjī (Alpetragius; d. circa 1200), and, the most celebrated of them all, Ibn Rushd (Averroes; 1126-1198). The foremost among their Jewish contemporaries is Maimonides (1135-1204) who, born in Spain, afterwards resided in Fez and ended his brilliant career in Cairo at the court of the Ayyubids. These men were the contemporaries of the first Christian monks, such as Atelhard of Bath and Plato of Tivoli, who came to Spain from different European countries in order to learn Arabic and to translate the Arabic scientific classics.

This is indeed the century when the first real cultural contacts took place between the Muhammadan and the Christian spheres, not only in Spain, but also in Sicily through the Norman conquests and in Syria through the Crusades. Otherwise than in the East, where the contact with Hindus and Chinese did not lead to a real transmission of cultural goods, the contact in the West was to give a new stimulus to the cultural efforts of medieval Europe. That such a thing was possible resulted from the conditions prevailing at that time in Europe and from the peculiar intermediary position of the Jews, rather than from the attitude of the Islamic scholars themselves, and its investigation therefore belongs to another section of this survey.

Meanwhile, Islamic scientific activity went its own way. The shifting process as described above, that went on for a period of four centuries, first from the centre in Irak mainly in an easterly direction, and then again to the West, continued during the following centuries. During these centuries the highest level of Islamic civilization was maintained in Egypt and Syria. It was in these countries and in Turkey that the orientalist of the XVIth century and onwards became acquainted with what was left of the huge literary legacy of Muhammadan knowledge. The shifting of centres of intellectual activity within the boundaries of a very extended type of civilization is a feature that may be observed also in the Hellenistic world; here we witness in the VIth century a concentration towards Constantinople, while the eastern form of that civilization was not long afterwards amalgamated with the newly arisen Islamic culture. Similar phenomena may also be witnessed in the history of scientific development in Europe, although there the process appears to be much more complicated.

As far as we can judge, the shifting in Islam was largely due to political events and to the influence of two trends of philosophical and

theological thought, which we have roughly described as orthodox and non-orthodox or "philosophical". Both ideologies had been gradually losing their sharp edges and their stimulating effect. The unity of Islam, however, remained, and what also remained for a long time was the same material and technological conditions that had existed since the beginning of the IXth century. New details were certainly continually being added to the sum of knowledge stored since that time, but these additions never were sufficient to bring about a radical change in the once established primary conceptions. If we may take as an instance the knowledge of the "inhabitable world", we see a gradual rapprochement between the specific Islamic descriptive geography of the countries belonging to the Muhammadan world, and the Ptolemaic mathematical system. The results were neither favourable to a better understanding of the real division between land and water, nor to the methods of astronomical geography. This may be seen from the well-known geographical treatise and the accompanying maps made by al-Idrīsī for King Roger of Sicily in 1156. And this notwithstanding the very important increase of geographical knowledge about European countries transmitted to al-Idrīsī by the agents of his Christian patron. Later treatises show that the general geographical outlook reached in this period by Islamic scholars had assumed its definitive form. There certainly were many and important additions of detail, but at the same time there is the tendency to embellish the transmitted knowledge with incredible and wondrous stories and popular traditions, such as the belief in the world-encircling mountain *Ḳāf*, traditions which the scholars of earlier times had managed to keep out of their descriptions. This means the end of what may be called unprejudiced research, and the mentality of these geographers is very far from that of men like al-Bīrūnī, who thought that he had found means to prove that there is a southern passage from the Indian Ocean into the Atlantic. The same attitude came to prevail in other branches of knowledge. 'Umar al-Khayyāmī still expressed the opinion that perhaps after him scholars would come, able to solve algebraic equations that were beyond his capacity, but in these later centuries more and more frequently the authors end their lengthy expositions with the resigned assertion that "God knows better".

Yet at this time there is no lack of encyclopedic works, wherein the stored knowledge of a more or less large number of sciences was registered, and in which due homage was paid to the scholars of earlier generations, divided into the two classes of the "ancients"

or pre-Islamic scholars, and the "moderns", the "learned men" of Islam. This distinction is already made in the Xth century catalogue of learned books, called the "Fihrist", and in the survey of sciences called "The Keys of Sciences", from which we have quoted in the first part of the present paper. The rather simple enumeration of non-Arab sciences found in the latter work: philosophy, logic, medicine, arithmetic, geometry, astronomy (astrology), music, mechanics (ingenious instruments), and chemistry (alchemy), is gradually replaced by a much more intricate classification of sciences and sub-sciences, such as for instance, the science of "how to remove stains from clothes".

All this leads to the conclusion that, after the XIIth century, the Islamic world as such had become satiated with scientific achievements. An equilibrium had been reached between on the one hand the concrete and intellectual needs of the community of the Muhammadans and their learned leaders, and on the other the knowledge and understanding of the world acquired by the labour of preceding generations. Henceforth the exclusive function of Islamic science is the upholding of the social and technological structure of the ancient Islamic world and its territorial increase in later times. Its more dynamic function of generating new scientific activity had finished in that world, but it was continued in another world that was erecting its intellectual civilization on new foundations.

THE LANGUAGE OF THE KORAN *)

In the entertaining and amusing discussions which SNOUCK HURGRONJE often had with his pupils and friends, he used to relevat^e his first acquaintance, when on his American journey, with SAMUEL ZWEMER, the famous Dutch-American missionary and scholar. One evening in New York Snouck Hurgronje attended a meeting where Zwemer held a talk about Christian missions in Egypt. Zwemer started out by impressing upon his audience the excellence and perfection of the Arab language. Arabic, he said, is a language which should not be spoken by men but by angels. Everything said in Arabic could not but penetrate directly to the heart of man. Unfortunately, Zwemer continued, Satan had taken possession of Arabic in some way or other, sending down in this language, by the mouth of the prophet Mohammed, a revelation to mankind which, tempted and enchanted by its beauty, had been converted to Islam. Hence Christian missions, he concluded, will not successfully gain entrance among Mohammedan peoples, unless they do make use of this superior language in propagating the Message. This method has indeed been applied by American missions.

The Rev. Zwemer does not stand alone in his admiration for the perfection of the Arab language. He can appeal to the entire Mohammedan tradition and to its ancientmost source, the Koran itself, or at least to its earliest interpretations. The Koran is the repository of the revelations received by Mohammed, the Messenger of Allah, and passed on by him in Arabic, his mother tongue, to his fellow-citizens: "If ye are in doubt about what We have sent down to Our servant, bring forward a *sūra* like it, and call your witnesses apart from Allah, if ye speak the truth ¹⁾". Similar utterances are frequently found in the Mohammedan book of revelation, and though it seems on first sight that the listeners are challenged to produce works whose *content* equals Mohammed's revelation, yet Mohammedan tradition has been unani-

*) Translated from the Inaugural Lecture, held in Dutch on occasion of the author's accession to the Chair of Arabic at the University of Leiden, on Feb. 9th, 1940, and published by E. J. Brill. The references to the Koran are in accordance with the verse numbering given in Bell's translation.

¹⁾ Koran II 21.

mous in its interpretation that the prophet defied his Meccan fellow-citizens to equal him in *language* and *style*.

The tendency to consider the language, in which the revelation came to the Arabs, at least as important as its contents, is typical of the particular cultural attitude of this people. The Koran itself contains unmistakable evidence of this fact: it calls Mohammed's preaching an "Arabic Koran ¹⁾". The insinuation by the prophet's enemies, to the effect that he derived his knowledge about former Israelite prophets from foreign Christians or Jews, is refuted by the argument that those foreigners would surely have used a non-Arabic language, "but this is Arabic speech clear ²⁾". These considerations, however, are not based upon the conception that the original text of the revelation, which in the Koran is called the "Mother of the Book", in which "Allah will delete what He willeth, or confirm what He willeth ³⁾", also has to be conceived of as written in Arabic. On the contrary, from this original text Allah also sent down revelations to the prophets who had risen before Mohammed, such as Moses and Jesus, in their own language ⁴⁾. Sacred tradition has it that part of the revelations at least were transmitted to the prophet by the angel Gabriel, who did for this purpose use Arabic, but this was only done in consideration of the Arab prophet. Arabic, therefore, was not also the language of the angels, nor of the devils.

The first person to have spoken Arabic, according to popular tradition, rather is Ismā'il, the son of Ibrāhīm or Abraham, who helped his father in building the Ka'ba, the Meccan sanctuary which, after a period of idolatry, was again consecrated by Mohammed to the service of the one god professed and preached by him ⁵⁾.

Pride in the mother tongue was such a firmly rooted heritage of the ancient Arabs, that their reaction to divine revelation was bound to contain a marked linguistic element. If any, the Arab people is evidence for the thesis brought forward by the Polish linguist Rozwadowski, that language is a part of the material cultural heritage. I only have to point towards the important social function exerted since pre-Mohammedan times by poetry in Arab Bedouin and urban society. It is true

¹⁾ E.g. Koran XII 2; XIII 37; etc.

²⁾ Koran XVI 105.

³⁾ Koran III 5; XIII 39.

⁴⁾ Koran XIV 4.

⁵⁾ C. A. Storey, *Persian Literature*, Section I, *Qur'anic Literature*, London 1927, p. 2.

that, over a decade ago, two competent orientalists—MARGOLIOUTH of England, and ṬĀHĀ ḤUSAIN of Egypt—have cast doubt on the existence of so-called early Arabic poetry; they suspected this poetry to have been constructed by certain philologists during the second century of the Hidjra, with the aim of furnishing evidence for their grammatical and lexicological studies¹). Even if these doubts were justified, nevertheless the fact that poetic art was an ancient heritage of the Arab tribes is indicated by the existence of a characteristic Arab poetic tradition, which existed already as a tradition during the first century of Islam, and maintained its peculiar forms even in a totally changed cultural environment with a well-nigh incomprehensible obstinacy. A Byzantine source of around 400 A.D. already attests the existence of Bedouin poetry. Of even greater importance are the accounts in Arab sources concerning the powerful, almost magical role, played by poets in the life of the tribes. They tell us how a few well-written defamatory lines, thrown at a rival tribe, impressed on its members the stigma of social ignominy, and how the prestige of a tribe was determined to a great extent by the rhetorical power and skill of its poets. The Bedouins' cultivation of eloquence must have been no less impressive; the activities of their orators, too, was surrounded by a tradition-bound ritual²).

In this curiously tinged cultural environment of ancient Arabia there suddenly appeared a literary manifestation, the Koran, which, by its bizarre and unorthodox language and style, brought about a crisis which had its repercussions in the entire spiritual realm.

The prophet Mohammed was no poet; the Koran rejects the opinion that he was a poet as a malevolent imputation³). The Koran was written in rhymed prose, a form of art which was also frequently cultivated in later ages—with greater success than in the Koran itself. In the days of the prophet, however, this rhymed prose was not held in high esteem; it was used only by soothsayers, and considered no less than a heretical offence against the traditional linguistic sense of the Arabs. But then Mohammed, a citizen of Mecca, did not belong to the desert tribes; for centuries the commercial environment of his home town had been influenced by the cosmopolitan

¹) D. S. Margoliouth, *The Origins of Arabic Poetry*, in *J.R.A.S.* 1925, p. 417ff. Ṭāhā Ḥusain, *Fī'l-Adab al-Djāhili*, Cairo 1345.

²) al-Djāhiz, *Kitāb al-Bayān wa'l-Tabyīn*, Cairo 1332, III p. 2 ff.

³) Koran XXVI 224.

cultures linked with Christianity and Judaism ¹⁾, which had not only affected spiritual life, but also the orthodox conceptions of the language. This latter fact is evidenced by the many foreign words—mainly derived from Christian Syriac—which occur in Allah's Book, notwithstanding the denial of this, substantiated with various arguments, by later Mohammedan scholars ²⁾. All that happened during Mohammed's time in Mecca, and also later in Medina, was quite newfangled when viewed from the ancient Arab standpoint; viewed, however, from the standpoint of contemporary cosmopolitan culture, these phenomena were only clumsy provincial manifestations.

Yet, under the influence of Mohammed's remarkably inspiring personality, this provincialism developed into a cosmopolitan culture, and the *language of the Koran*, too, had its predominant part in this development. Arabic became a world language which did not only serve as a learned literary language for a pattern of civilization that stretched from Morocco far into Asia, but which also nearly completely superseded the languages spoken formerly in Syria, Egypt and other parts of Africa, as a vehicle of communication. The first impetus to this remarkable development came from the sudden appearance in Arabia, a country linguistically so passionate and yet so orthodox, of the Koran, which deviated so strongly in genre and style, and yet was so imposing in its language. Pious tradition narrates how 'Umar, the later Caliph, once happened to listen to a recital of the Koran. At that time he was still persecuting Mohammed's followers, but upon hearing the recital he was so moved by the beauty of its language that he repented immediately and became one of the prophet's staunchest adherents.

Thus, it became a tenet of Islam to consider the language and style of the Koran perfect and inimitable; on this fact we are amply informed by an almost too copious literature ³⁾.

During the century following the rise of Mohammed, the Mohammedans possessed only one book: the Koran. The manner in which, soon after the prophet's death, the Koranic revelations were committed to writing and compiled into a continuous chain of *sūras* or chapters, has been thoroughly studied by early Mohammedan

¹⁾ Cf. D. Tor Andrae, *Der Ursprung des Islams und das Christentum*, Uppsala and Stockholm, 1926.

²⁾ al-Shāfi'ī, *al-Risāla*, Būlāk 1321, p. 15ff. To be found in transcription in G. Bergsträsser, *Einführung in die Semitischen Sprachen*, München 1928, p. 153ff.

³⁾ I. Goldziher, *Die Richtungen der Islamischen Koranauslegung*, Leiden 1920, p. 120ff.

scholars and modern orientalists alike¹). From this study we see how there were at first widely diverging opinions, beginning with the question of authenticity of the component parts, then about the correct consonant text, and finally concerning the correct pronunciation. Not until the end of the second century some degree of general agreement was reached, though it left room for the existence, side by side, of a number of divergent schools of reading, all equally recognized.

The Arabs, so sensitive to their language, must have been very well suited to undertaking this philological-religious labour of sifting and compilation. Already among the so-called "Companions" of the prophet, and the generation immediately succeeding them, there have been men in Medina who worked in this field and thus helped consolidate the spiritual power of Islam, concurrently with the warriors of the first caliphs, who helped establish in East and West the temporal power of the Muslims. These men were the first representatives of the class of scholars or *'ulamā'*, so typical of the entire system of Islam; they are called the "heirs of the prophets" in a statement emanating from Mohammed. They constitute the moral and spiritual conscience of the Mohammedan community. As scholars of the Law they constructed the imposing system of the *fiqh* or "jurisprudence". As theologians they created the apologetics and dogmatics of Islam. And as scribes they cultivated the knowledge and exegesis, indispensable for theology, of the Koran and of another important source, important also from a linguistic point of view: the *ḥadīth*, i.e. the traditions concerning the prophet's words and deeds.

The study and transmission of the *ḥadīth* continued to be the principal scholarly occupation in Islam. As is generally known, it was part of WENSINCK's unfinished life-work to render this curious literature accessible to research. Apart from his *Handbook of Early Muhammadan Tradition*²), the result of his labours are to be found in his *Concordance et indices de la tradition musulmane*³), part of which was recently completed. It is very much to be hoped that scholars who are capable of con-

¹) Recently Arthur Jeffery, *Materials for the History of the Text of the Qur'an*, Leiden 1937.

²) Published Leiden 1927.

³) Vol. I, consisting of 7 instalments, appeared in 1936, followed in 1937 and 1938 by instalments VIII to XI which form part of Vol. II. See also J. Huizinga, *Levensbericht van Arent Jan Wensinck*, in *Jaarboek der Kon. Ned. Akademie van Wetenschappen* 1939-1940, p. 4.

tinuing this work may be enabled to bring it to a close, thus fulfilling an obligation to the memory of Wensinck as well as to science.

Mohammedan scholars only gradually began to embody the results of their studies in treatises steadily growing in volume. We do no longer possess the earliest tracts of this nature. Hence we have no means of tracing the early development of Mohammedan scholarly literature—the only literature apart from poetry. In conformity with the Koran, however, this literature was in Arabic, written down in the provincial and imperfect Northern Semitic alphabet which must have been used by the Meccan merchants and is found on the earliest Arabic papyri from Egypt and a few documents from elsewhere¹). Thus, the Koran was gradually delivered from its isolated position as the only Book or *Kitāb*. People began to produce *kitābs* themselves, and in such quantities that in the Mediaeval world they were probably only surpassed in prolific authorship by the Chinese literati.

The science of the Arab language developed at a very early date in the scholarly centres of Islam. What has been said above may have clarified our picture of the general conditions favouring the development of this science. As to the immediate cause, Arabic sources tell us that, owing to the spread of Arabic in countries with non-Arabic speaking populations, this language threatened to degenerate. Some scholars more specifically ascribed this degeneration to hearing the language of non-Arabs, for, as one of them said, "hearing is the father of linguistic usage²)". The first person said to have compiled a grammatical treatise was a certain ABU'L-ASWAD AL-DU'ALĪ, who belonged to the generation after Mohammed. It is told that he was shocked by the uncouth language spoken by the Arabs in the recently founded garrison town of Baṣra, and that he asked the governor's permission to write a Guide to the correct use of Arabic. The governor refused, but shortly afterwards, when hearing somebody commit an unpardonable linguistic blunder—the man used an accusative instead of a nominative—he revoked his decision. According to a variant of the story, it was Abū'l-Aswad's own little daughter who had sinned against grammar. It is indeed recorded of Abū'l-Aswad that he wrote a treatise on subject and object; in subsequent manuals on grammar this remained a fixed chapter³).

¹) In 1933 Sogdian documents were found, and also a letter in Arabic, dating from appr. 719, in the ruins of a castle in the vicinity of Samarkand. Cf. W. A. Kratchowsky in *Sogdiyskiy Sbornik*, Leningrad 1934, p. 52ff.

²) Ibn Khaldūn, *Muḥaddima*, ed. Būlāḳ 1274, p. 281 ff.

³) G. Flügel, *Die grammatischen Schulen der Araber* (*Abhandlungen der Deutschen Morgenländischen Gesellschaft* II, No. 4) Leipzig 1862, p. 21ff.

Abū'l-Aswad is also said to have initiated the division of Arabic grammar into three parts of speech: noun (*ism*), verb (*fi'l*) and particle (*harf*). For this fundamental insight he is said to have been indebted to no less a person than 'Alī ibn Abī Ṭālib, cousin and son-in-law to the prophet, who is regarded by pious tradition as the fountainhead of all knowledge, also as regards other Mohammedan disciplines¹). This division into three is indeed fundamental to all the treatises written by Arab grammarians. Half a century ago, however, MERX has demonstrated that the division, which fits the Semitic languages rather well, must have come about through foreign influence. At that time Syria and Irak were the centres of Syrian Hellenistic scholarship, to which the nascent Mohammedan culture was much indebted. For the perfection of their writing, too, the Arabs followed the example of the Syrians, but they did not take over the division into seven parts of speech adopted by the Syrians in imitation of Greek grammar. The division into three parts of speech in Arabic goes back to the logical grammatical classification, put forward by Aristotle himself, into *ὄνομα*, *ῥῆμα* and *σύνδεσμος*²). This acquaintance with Greek philosophical concepts did, therefore, take place long before the well-known reception of Greek scholarship under Caliph Hārūn al-Rashīd and his successors. In these early times Greek influence can be traced also in other branches of Mohammedan scholarship, in the same way as a certain measure of spiritual influence must have made its way from India to the cradle of Arab Mohammedan culture. Perhaps we must consider the university founded by the Persian king Shāpūr I in Djundē-Shāpūr, in the immediate vicinity of Irak, to have been the centre which initiated this early scholarship³).

We are unable to trace the processes of this scholarly contact, nor shall we ever be likely to know the actual role played by Abū'l-Aswad al-Du'ālī and his pupils, whose names have been transmitted. We even do not know whether their labours were more immediately connected with the compilation and editing of the Koran text. Bearing in mind what was said above, however, this seems very probable, more probable than the opinion which ascribes the elaboration of Arabic grammar to the great interest displayed by the Arabs in their poetical language⁴).

¹) Flügel, *op. cit.*, p. 16, 22.

²) A. Merx, *Historia Artis Grammaticae apud Syros* (*Abhandlungen für die Kunde des Morgenlandes*, IX, No. 2) p. 141ff.

³) On Middle-Persian mediation in the transmission of Greek science, see: C. A. Nallino, *Tracce di opere Greche giunte agli Arabi per trafila Pehlevica*, in *A Volume of Oriental Studies presented to E. G. Browne*, Cambridge 1922, p. 345ff.

⁴) F. Buhl, *Sproglige og Historiske Bidrag til den Arabiske Grammatik*, Leipzig 1878, p. 2.

Thus, the Arabs had only a few notions, derived from Greek scholarship, with which to build up their own grammatical system. They went about this in a way which, on the one hand, elicits admiration for their correct observation of linguistic phenomena, but, on the other hand, amazes us by the manner in which they used what we would consider mere external aspects for the classification of those phenomena, while grammatical distinctions which, to our mind, are quite obvious, were never clear to them. Yet, precisely because of its comparative originality this system is fascinating to modern linguists, in the same surprising way in which e.g. the curious system of Islamic Law, when compared with our own legal notions, throws light on the mentality of Mohammedan scholars ¹⁾.

The science of Arabic grammar reached its peak at an early date. Its most perfect elaboration was the *magnum opus* of SIBAWAIHI, who died around 800 and was a Persian by birth. His book has been honoured with the name of *al-Kitāb*, "the Book". For its comprehensive scope and its excellence it is extolled to the skies. Great Law scholars have declared that, not until they had studied this book, did they gain a true insight into their own field, which was the study and elaboration of the *Shari'a*, the "Law of Allah ²⁾". Together with his predecessors Sibawaihi belonged to the grammatical school of Baṣra; shortly afterwards another grammatical school developed in Kūfa, the other garrison town of Irak. In the end the tradition of both schools was continued by the scholars of glorious Bagdad, the City of Salvation. The arguments between the schools of Baṣra and Kūfa have given rise to a voluminous literature, which gives everyone who has the courage to engage in its study an opportunity to become acquainted with the interesting and clever working methods of the Mohammedan scholars. All subsequent grammatical literature relies on these early achievements.

Apart from grammar, the "science of the Arab language" also includes lexicology, stylistics and literature or *adab*. In all these fields the study of early Arabic poetry came to occupy a preponderant place, while the Koran, being an ideally perfect text, remained a tabooed area to linguistic criticism. In their search for a corroboration of their linguistic contentions, the scholars turned to the verses of the old poets.

¹⁾ Cf. G. Bergsträsser, *Grundzüge des islamischen Rechtes*, Berlin 1935.

²⁾ Cf. Introduction to the edition of H. Derenbourg, *Le Livre de Sibawaihi*, Paris 1881-1889, p. xxvii.

They even did not shrink from constructing verses of their own for evidence, as has been expressly indicated in certain cases. This is why some modern scholars, whom we mentioned above, doubt the authenticity of pre-Mohammedan poetry in general. Other scholars even went round among the Bedouins in order to hear from them the pure and simple language of the Arabs. Especially the lexicologists worked on the rich vocabulary of Arabic, and in this way brought together the well-nigh inexhaustible lexicological material which still constitutes a terror to the students. In all this they remained scholars. One of them, ABŪ 'UBAIDA, who is said to have written fifty treatises on the bodily parts of a horse, once was asked to indicate on a real horse the location of these different parts. Being unable to do so, he retorted: "But I am not a veterinarian ¹⁾".

To the Arab scholars the science of grammar is divided into two parts. The first part concerns the structure of nominal and verbal forms; originally this meant establishing a correct consonant text. The second part consists of determining the correct pronunciation of the consonants, i.e. the correct location of the vowels, or, in Arabic terminology, the "movements". The correct pronunciation or vocalisation of the words was called *i'rāb*, which actually means "to turn into correct Arabic ²⁾". In a more restricted sense *i'rāb* is the correct application of the endings to the words. Its study is concerned with the field which we would call syntax, because the endings are determined mainly—according to the Baṣra school always—by directing or ruling words or particles, called the '*awāmil* or "regentia"; this rule, too, is said to go back to 'Alī ibn Abī Ṭālib ³⁾. The object under investigation here was the question whether certain endings had to be read *-un* or *-u*, *-in* or *-i*, *-an* or *-a* (*-ā*). I do not think that all of you, worthy listeners, possess a knowledge of Arabic, and I would not have dared to enter into such detail, if a similar regrettable uncertainty did not prevail in the spelling of Dutch concerning some endings. There is also a similarity in the circumstance that the civilized Arabs did no longer, or at least very imperfectly, pronounce these endings, and that the scholars felt obliged to establish, once and for all, the correct pronunciation. Unlike the case with Dutch, they were completely successful, the only difference being that the said endings

¹⁾ Buhl, *op. cit.* p. 8, following Ibn Khallikān, p. 403.

²⁾ Merx, *op. cit.* p. 143, thinks that also the term *i'rāb* has come about in imitation of the Greek term ἑλληνισμός.

³⁾ Buhl, *op. cit.* p. 11; Flügel, *op. cit.* p. 15.

do not have to be added in the Arabic consonant text. Hence anybody who, in other respects, writes correct Arabic is able to leave the impression that he is a good schoolmaster. Unfortunately, Dutch lacks this possibility, owing to the tyranny of our alphabet.

Thus, the Arab grammatical science was scholastic in origin and formal in practice. And yet, as I remarked before, it has its original aspects, and sometimes succeeded in finding genuine grammatical categories which have also attracted the attention of modern linguistic research, as was e.g. the case with the rule of the "regentia" mentioned above ¹⁾.

It is not surprising that such a thoroughly medieval mentality as evident in Arab linguistics is again better understood in our time. The discipline of modern linguistics, which can be said to be a hundred years old, was dominated for a long time by research methods which were determined by an optimist-materialist trend of thought. Starting out from the discovery that the Indogermanic languages were mutually cognate, these methods were atomistic and anatomical. I have to state at the outset that they have brought about an immense clarification in our linguistic insight. They have also delivered us from the romantic atmosphere which, in its turn, had prompted the development of modern linguistics. They have been most perfectly expressed in the so-called "junggrammatische" school in Germany. Even till the present day this atomistic type of research has been successfully carried on in France, albeit within the framework of more evolved linguistic conceptions ²⁾.

It is curious to note, however, that Arabic and the Semitic languages, as well as other language families, have profited much less from modern methods of research. While philological work on Arabic was brilliantly carried on by such scholars as FLEISCHER and NÖLDEKE, the interrelation of the Semitic languages was so evident that an analytical comparison of their linguistic elements seemed hardly justified. This does not mean that there have been no such attempts. Evidence for this is CARL BROCKELMANN's monumental *Grundriss der vergleichenden Grammatik der Semitischen Sprachen* ³⁾. Brockelmann applied the strict principles of the "junggrammatische" school. I also wish to mention in this connection the important works by H. RECKENDORF on

¹⁾ L. Hjelmslev, *Principes de Grammaire Générale* (Det Kgl. Danske Vid. Selskab, Hist.-Fil. Medd. XVI 1), Copenhagen 1928, p. 158.

²⁾ E. Benveniste, *Origines de la Formation des Mots en Indo-Européen*, Paris 1935.

³⁾ Appeared in 2 vols, Berlin 1908 and 1913.

Arabic syntax¹⁾, which is based on a careful analysis of a great number of classical texts. Nevertheless, this admirable cataloguing work did leave a vague sense of dissatisfaction, precisely because in the Semitic languages the phenomena studied are so simple and self-evident. This curious regularity, which is even more evident in other languages such as Turkish, escaped a detailed analytical investigation, and therefore gave no mental satisfaction.

Since then scientific conceptions have gone a different way, more satisfying at least to *our* mental requirements. Linguistics have regained a more or less scholastic or dogmatic form, as a result of the tendency to regard linguistic phenomena rather as parts of a system or of different systems. This conception has taught us to understand the function of these parts within the framework of their system, and in this way to trace affinities of which the former inductive analysis was incapable by its very method.

Among those, whose work has initiated the spread of these new linguistic conceptions, I mention VAN GINNEKEN of Holland, DE SAUSSURE of Switzerland, and BAUDOUIN DE COURTENAY of Poland. Especially De Saussure, who made a clear distinction between a synchronic and a diachronic conception of language²⁾, has had many followers, mainly in France, but also in Holland, Germany and elsewhere. Among the research methods connected with this more recent conception of language an increasingly important role is played by deduction. Certain theses are taken as a basis, the most fundamental thesis being that language is a system of signs. These theses would be called working hypotheses in natural science, but, because of the standardizing nature of the material studied, they rather gain a dogmatic quality in linguistics. At the same time a great number of new terms have been introduced into linguistics, partly derived from earlier philosophic and scholastic terminology; their distinctive relevance, however, will in many cases have to be tested by further usage.

One of the most brilliant results of this new working method is the science of *phonology*, forever linked to the name of its most penetrating formulator, the Russian scholar TRUBETZKOY who died in 1938³⁾.

¹⁾ H. Reckendorf, *Die syntaktischen Verhältnisse des Arabischen*, Leiden 1895-1898, and *Arabische Syntax*, Heidelberg 1921.

²⁾ F. de Saussure, *Cours de Linguistique Générale*, Paris 1923.

³⁾ Recently N. S. Trubetzkoy, *Grundzüge der Phonologie* (*Travaux du Cercle Linguistique de Prague*, No. 7), Prague 1939.

In a publication which appeared last year¹⁾ VAN WIJK gives an excellent introduction into the subject-matter and methods of this science. Phonology investigates for each separate language its sounds and their structural context as psychological realities, in contradistinction to the older science of phonetics, which is more physiologically oriented. Whereas phonetics, however, have always constituted an auxiliary science, phonology has come to occupy a place of equal rank with the other linguistic sciences. We may actually say that it occupies a preponderant place, since the dogmatic investigation of linguistic structure has hitherto advanced farthest in phonology. This has brought about the use, even in morphology and syntax, of the—in my opinion less happy—term of “phonological method”; the application of this method on those other fields has recently been successfully undertaken, among others by A. W. DE GROOT of the University of Amsterdam²⁾.

I am of the opinion that this new orientation of linguistics will open up even broader and more satisfactory perspectives. It may not be altogether impossible in the future, making use of the phonological structure of a language, to arrive at an explanation of its formal and syntactic structure. Such an explanation could be paralleled to the deduction of the chemical and physical properties of matter from its atomic structure. In his book, Van Wijk already points towards a search in this direction, on occasion of a treatise by R. JACOBSON who deducts a morphological phenomenon in Slavonic from a phonological peculiarity³⁾.

These problems will be seen with even greater clarity when the Semitic languages also will have been drawn into this field of investigation. It is true that TRUBETZKOY and others have given a description of the phonological phenomena of Arabic and other Semitic languages. As far as I know, however, few have ventured into a closer scrutiny of the connection between the morphology of these languages and their phonological structure—though Van Wijk did point towards it in his chapter on so-called “morphonology”⁴⁾. Certain consonant

¹⁾ N. van Wijk, *Phonologie, een Hoofdstuk uit de structurele Taalwetenschap*, The Hague 1939.

²⁾ A. W. de Groot, *Zur Grundlegung der Morphologie und der Syntax*, in *Algemeen Nederlands Tijdschrift voor Wijsbegeerte en Psychologie*, vol. 32 (1939) No. 3.

³⁾ Van Wijk, *op. cit.*, p. 195ff.

⁴⁾ Van Wijk, *op. cit.* p. 128ff. Cf. also G. Bergsträsser's remarks in his *Einleitung in die Semitischen Sprachen*, p. 7.

phonemes in the Semitic languages fulfil, within their usual three-radical framework, a marked semantic function, to such an extent that, in working out the phonological oppositions, we have to distinguish between radical phonemes and suffixal phonemes. This means that we have entered already the field of morphology. Similar conditions are to be found in Turkish, too.

If we would have had to explain all this to the early Arab grammarians, they would, after having finally understood, have been amazed that facts, which to them were so self-evident, had to be established with so much verbiage. The difference is, however, that they saw these facts in a different light, for they did not distinguish between phonetics and phonology, nor were they accustomed to separate morphological phenomena from their syntactic framework. Moreover, we seldom find them using arguments based on etymology, so customary in our traditional linguistic conceptions. A scholar from Kūfa, who had ventured to give a very innocent and probably correct etymology of this nature, was criticized as follows: "What proof does he have? He could only obtain an insight in such matters through a divine revelation, which is manifestly impossible". A diachronic conception of language was totally unknown to these scholars. On the other hand, a statement such as: "the root is constituted by what is simple, and the composite constitutes the branches (the derivatives)", strongly reminds us of the distinction between "with" and "without significant features", used so successfully in phonological reasoning¹).

Also the terminology, used by the Arab scholars in their linguistic studies, sometimes has a modern flavour. IBN KHALDŪN, deservedly famous for his sociological theories, and writing around 1400, states in his survey of the disciplines of the Arabic language: "The expression of thoughts is a function of the tongue, for the member which exerts this function must have an inherent skill, and this is the tongue (Arabic has one and the same word for "tongue" and "language"). This is different in the case of each people and in accordance with the special aptitude of that people, but the skill which, in this respect, exists among the Arabs is most excellent, and most capable of expressing what is meant, as e.g. the vowel variations which distinguish the subject from the object, the 'letters' which indicate the person in the verbal forms . . . etc. This is only to be

¹) Buhl, *op. cit.* p. 18, following al-Anbārī.

found in the language of the Arabs.... Hence the speech of non-Arabs is more long-winded than is to be expected from the speech of Arabs" ¹⁾. I must add here that the above writer himself in his book is far from being a model of the virtue of which he is in praise. Nevertheless the fact is true in itself, for there are numerous examples in the early literature of pithy and concise sayings, which were used not only as proverbs or idiomatic expressions, but also as improvised remarks, rapidly and accurately characterizing a given situation. It is recorded of the prophet Mohammed that he possessed this talent to a high degree; in a well-known *ḥadīth* it says: "I have been given summarizing words, and speech has been made concise for me ²⁾".

Finally, and referring to my opening remarks, I should like to ask your special attention for Ibn Khaldūn's remark on the superiority of the Arabic language. It has been a dogma of linguistics since the close of last century that one language cannot be "better" than another, an opinion based on the not quite logical argument that all language phenomena are equally important as research objects, no matter to which language they belong. The contention, often uttered in scientific circles before this time, that this or that language—but usually the language of the speaker—surpasses other languages in quality, has from then on been relegated to the realm of popular misconceptions. As far as I can see, the direction which linguistics have now taken will have to lead to a reconsideration of the hitherto current conceptions on this point. Especially since phonology has begun to involve the psychological evaluation of groups of linguistic phenomena into the research process, more important elements in the realm of language must inevitably also be discussed, weighed and contrasted in their relative function and efficacy. The systems of the individual languages themselves are also among these elements ³⁾. The judgment, however, shall be much better founded and more impartial, owing to a century-long linguistic analysis. As an example of this manner of reasoning I mention an article by SALVERDA DE GRAVE in the "Haagsch Maandblad" of 1926, entitled *Waarom juist het Frans?* ("Why precisely

¹⁾ Ibn Khaldūn, *op. cit.* p. 281.

²⁾ I.a. in the collection of traditions by Muslim: *Maṣāḍijid*, 5-8, after *Concordance et indices de la tradition musulmane* by A. J. Wensinck, where also the other places in the *ḥadīth* works are indicated.

³⁾ See e.g. the observations by H. L. Koppelman, *Die Ursachen des Lautwandels*, Leiden 1939, in which excellent remarks are also made on modern Arabic.

French?"¹⁾). This article was only concerned with the thesis that, for pedagogical reasons, French should be taught as early as possible in Dutch primary schools, but the majestic evaluation of the French language—which, of course, also has the shortcomings of its qualities—has stuck in my memory as a promise of future possibilities.

In our search for arguments in favour of the special virtues of Arabic we have to turn again in the first place to the Arab scholars. The statement by Ibn Khaldūn, quoted above,—it is, in any case, a traditional view—contains some linguistic arguments which are well worth considering. Their only limitation is that the Arab scholars had but few languages at their disposal for comparison. Their arguments, however, in favour of the thesis that Arabic is the "lord of speech", as has been said once by 'Alī, are valid with respect to these few languages, such as Persian, Turkish and Berber. The enumeration of the merits of Arabic was mainly occasioned by the need for a defence against the so-called *Shu'ūbiya*, a thought current which had emerged in the beginning of the Abbasid period among the non-Arab, mainly Iranian, intellectuals. The latter had emblazoned the superiority of their own traditional cultural heritage over the Arabs. In the ensuing polemic literature the language is also discussed²⁾.

The Persians, exhibiting a consciousness of their race and people, did not go much farther in this respect than demonstrating the Persian origin of various Arabic words and names. For the rest they indulged in general deprecations of Arabic, saying e.g. that the age-long custom of the Arabs to shout at their camels had blunted their speech organs, thus resulting in a coarsening of their language³⁾. The Arab or rather pro-Arab scholars contrasted the natural and spontaneous eloquence of the Arabs with that of the Persians. AL-DJĀHIZ says that eloquence may have existed among the Persians, but according to him their oratory is always the result of pondering, exertion and seclusion, of consultation and appealing for help, of laborious consultation of books, of quoting from somebody else's knowledge and adding from yet another source. In addition he insinuates that the books of the Persians and their wisdom are not even authentic⁴⁾.

The learned ABŪ'L-ḤUSAIN IBN FĀRIS defends the excellence of

¹⁾ Dr J. J. Salverda de Grave, *Waarom juist het Frans?*, in *Haagsch Maandblad*, December 1926, p. 595ff.

²⁾ I. Goldziher, *Muhammedanische Studien* I, Halle 1889, p. 208ff.

³⁾ al-Djāhiz, *Kitāb al-Bayān wa'l Tabyin*, III p. 6.

⁴⁾ al-Djāhiz, *op. cit.* p. 13.

Arabic on more business-like, and among others on linguistic, grounds. He admits the possibility of formulating one's thoughts in a non-Arabic language, but maintains that the means of expression in such a language are of the lowest level. Hence, in his opinion, Arabic cannot be translated into another language; he refers in particular to certain passages in the Koran which can only be intelligibly rendered by means of long paraphrases—and here he is undoubtedly right ¹⁾. It is furthermore curious to see that Ibn Fāris also connects the excellence of Arabic with the fact that only Arabic has got *i'rāb*, i.e. the possibility, discussed above, of variation in the endings of nouns and verbs. He strictly denies the existence of such a feature in Greek. The languages known to him, however, such as Persian, Turkish and Syriac, actually do not dispose of similar refined means of grammatical distinction.

An example of a probably impartial witness to the superiority of Arabic over Persian is a certain AL-NASAWĪ, who was himself a Persian. The University of Leiden possesses an MS copy of his handbook of arithmetic, written for the revenue officials of the kingdom of the Persian Buyids during the 10th century A.D. ²⁾. In his introduction al-Nasawī states that he had originally written his treatise in Persian. Because of the impossibility, however, of attaining in this language an exact mode of expression, the book proved useless, and the author had been obliged to re-write it in Arabic.

As regards Syriac, the products of the astounding labours of translation from Greek, which took place under Hārūn al-Rashīd and al-Ma'mūn, constitute a telling witness to the far greater capacity of Arabic in reproducing Greek scientific literature than that of Syriac: the same works were simultaneously translated into both languages by the same authors ³⁾. Arabic, with its far greater wealth in distinguishing particles and its more extensive vocabulary, turned out to be much more capable of assimilating this foreign cultural heritage. The result was an enrichment of the spiritual values of Mohammedan culture, for which the much older Christian-Syrian culture proved no match. Among the Syrians there were good grammarians who did their best to uphold a knowledge and study of Syriac as against

¹⁾ Goldziher, *op. cit.* p. 214.

²⁾ Cod. 556 VI Warner. The said passage has been reproduced on p. 68 of vol. III of the Catalogue of Oriental Manuscripts.

³⁾ Cf. Ḥunain ibn Ishāq, *Über die syrischen und arabischen Galenübersetzungen*, ed. G. Bergstrasser (AKM XVII, 2), Leipzig 1925.

Arabic; an example of this, as late as the 11th century, is the Nestorian metropolite ELIAS BAR SĪNĀYĀ of Nisibis¹). Yet, in their Christian congregations, too, Arabic proved to be strongest.

Conversely, Arabic grammar has had a stimulating effect on the study of other languages. This is especially true of the Syrians, but Jewish scholars, too, have profited for their linguistic studies of Hebrew from Arab examples²). Matters became more serious, however, when Persians and Turks³) began to apply the grammatical and especially the morphological categories of Arabic to their own languages which were so different in structure, in the same manner as the present Dutch school grammar still reveals the influence of Latin.

The fact that popular appreciation too admits the superiority of Arabic appears from the well-known Persian jingle '*arabī hunar ast, fārisī shakar ast*, "Arabic is art, Persian is sugar". A third language—not always the same one—is often mentioned in addition, but the terms used to express the low esteem for this other language are of such a nature that my respect for this assembly prevents me from quoting them.

One of the advantages of Arabic is its capacity for accurate expression, similar to what was noted by Salverda de Grave in the case of French. Persian is far less accurate, thus having to leave more room to the imagination, unlike Arabic which often lacks this feature. This may be illustrated by a typical example from the so-called defamatory literature. An early Arab Bedouin poet, wishing to revile the rival tribe of the Bāhilites, begins his *Kaṣīda* in the following way.

"If you say to a dog, you Bāhilitel, it will whine because of this scornful treatment⁴)".

In comparison I quote a Persian who has something against the inhabitants of the city of Isfahan:

"Isfahan is a paradise full of bliss; if only there would be no Isfahanians⁵)".

The latter example is far less direct, leaving ample room for varying degrees of malicious fantasy among the listeners.

¹) Merx, *op. cit.* p. 110.

²) Lecture by Dr. Eppenstein on *Die hebräisch-arabische Sprachvergleichung bei den jüdischen Gelehrten des Mittelalters* (*Mitteilungen des Akademisch-Orientalistischen Vereins in Berlin* 1887) June 7th, 1887.

³) See e.g. al-Kashdjārī, *Divān Ludjāt al-Turk*, Istanbul 1333-1355.

⁴) Goldziher, *op. cit.* p. 149.

⁵) E. G. Browne, *A year amongst the Persians*, Cambridge 1927, p. 214.

The value of these contentions, however, will have to be tested by gathering much more material. What I wish to stress here—returning to my starting point—is that Arabic belongs to the languages whose intrinsic virtues make them a powerful cultural heirloom of its speakers and writers. Furthermore I wish to stress the possibility of elucidating those virtues by means of modern linguistic research methods. And finally, that the early Arab grammarians too can serve as our guides in this research.

I take great pleasure in reminding you here of a study by my predecessor, which appeared in 1927 and is devoted to gender in the Semitic languages ¹⁾. By a thorough study of the material concerned WENSINCK was led to explain the feminine gender, insofar as it does not indicate natural feminine beings, from the belief in the magical potency of the objects which grammatically are indicated as feminine. I cannot discuss this conclusion here—which is more specifically concerned with interpretation—, but the above investigation again shows the great wealth of expression in a language which makes a grammatical distinction between genders. By its lack of reasonableness this distinction upsets the logically required parallelism between the means of expression and the thing expressed, but by its congruence it permits a meaningful distinction of the interrelation of the words. It is also clear from this that a language is more, or at least of a different order, than the thoughts for which it serves as a vehicle. The Arab grammarians—who did in any case borrow the notion of gender, and also the word for it, from Latin—have understood this in their own fashion.

I wish here to recall yet another good Arabist, the scholar ACHILLE RATTI, who, in his function as POPE PIUS XI, stressed over and over again the excellence of another great classical language: Latin. "The Church", it is said in the Apostolic Letter of August 1, 1922, "needs a language which by its nature is universal and unchanging, and which is not the language of the people. The Latin language being of this nature, it has been divinely pre-ordained to be a miraculous expedient of the *Ecclesia Docens* ²⁾". This is only one quotation

¹⁾ A. J. Wensinck, *Some Aspects of Gender in the Semitic Languages* (*Verhandelingen der Koninklijke Akademie van Wetenschappen, Afdeling Letteren* N. R. Deel XXVI No. 3) Amsterdam 1927. Cf. also Merx, *op. cit.* p. 144ff.

²⁾ *Epistola Apostolica*, August 1, 1922 (*Acta Apostolica Sedis* 1922, p. 452, "Officiorum Omnium"). I am indebted for this quotation to Dr. Jac. de Vreese S.J. of the Hague.

among many, but I also appeal to this great authority among Arabists in defence of my thesis concerning the relative qualities of the languages. Islam owes as much to Arabic—I agree with Zwemer—as the Catholic Church to Latin ¹⁾).

May such considerations console and encourage the students who, amid their laborious toil, would be inclined to repeat the words of the Arab philologist IBN 'ABD RABBIHI: "He who occupies himself much with grammar becomes unhinged thereby.

¹⁾ Buhl. *op. cit.* p. 5.

L'ISLAM ET LA DÉMOCRATIE *)

Personne ne niera que la conception de la démocratie n'entre pas dans l'ensemble des idées qui traditionnellement ont accompagné l'évolution des théories politiques de l'Islam. Si quelques modernistes veulent nous faire croire que l'Islam est essentiellement démocratique¹⁾, ce jugement repose seulement sur une évaluation nouvelle des anciennes conceptions, effectuée du point de vue d'un sociologue de nos propres temps.

On serait tout de même en droit de qualifier les institutions de l'Islam de démocratiques dans la mesure que la Loi Divine préconise l'égalité absolue de tous les croyants vis-à-vis de Dieu et par là vis-à-vis du représentant de Dieu sur la terre, le calife; celui-ci, dans sa qualité de chef de la communauté islamique, ne fait rien qu'appliquer les commandements de Dieu. Aussi Snouck Hurgronje, dans son livre sur les Atchinois, remarque qu'on pourrait difficilement se représenter une monarchie, ou plutôt une république, plus constitutionnelle que l'„État musulman" des traités de loi²⁾. La constitution, dans ce cas, c'est l'ensemble des prescriptions légales, qui ont autant d'autorité pour les gouverneurs et pour les délégués du chef que pour celui-ci.

Snouck Hurgronje continue en déclarant que la pratique gouvernementale dans les pays islamiques présente un contraste prononcé avec les institutions de la théorie légaliste. Partout dans le monde islamique a régné le despotisme le plus brutal et l'arbitraire le plus absolu. Ici on pourrait remarquer de manière générale que l'histoire de l'Islam n'a pas montré partout et toujours au même degré ce manque de sentiment constitutionnel et que, surtout dans le domaine social, les tendances démocratiques se font remarquer assez clairement, notamment dans les périodes qui ont connu un régime sage, capable de contenir les forces qui opéraient dans un sens opposé.

La théorie des légistes du reste s'est depuis longtemps résignée à cet état de choses en déclarant qu'il était amené par l'imperfection de la nature humaine et en général par la détérioration des temps.

*) Paru dans „*Orientalia Neerlandica*", Leiden 1948.

1) Goldziher, *Richtungen der islamischen Korananslegung*, p. 355.

2) Snouck Hurgronje, *De Atjehers*, II, p. 355.

C'est l'attitude depuis longtemps traditionnelle des légistes en face de la non-observation de la *shari'a* qui, dans leur doctrine, a un caractère idéal et dont la réalisation complète est impossible en ce monde.

Il est à noter cependant que cet état de choses si peu désirable aux yeux des gens pieux est causé par le fait que les institutions musulmanes ne connaissent aucune instance dont la tâche serait de contrôler l'application des pouvoirs politiques dans la vie de la communauté. Tous ces pouvoirs sont dérivés en somme de l'autorité du chef et celle-ci à son tour dérive de Dieu. Le seul contrôle existe dans la conscience individuelle des gouvernants dont l'humanité est trop souvent incapable de s'inspirer des commandements en réalité sur-humains de la Loi Divine. On est en face ici d'une de ces lacunes ou imperfections — de notre point de vue — dans le système islamique qui, avec toute sa casuistique, ne précise pas généralement de quelle façon les commandements doivent être appliqués. Telle par exemple la liberté laissée au juge musulman en matière pénale; sa compétence de prononcer des peines par le *ta'zir* n'est liée à aucune prescription détaillée.

La seule instance séculière reconnue par la Loi est le fameux consensus de la communauté islamique appelé *idjmā'*. En théorie l'*idjmā'* est même régulateur pour la Loi même. Mais en pratique ce consensus universalis est impossible à manier. C'est une instance qui manque d'organe. Les différentes tentatives des docteurs de le munir d'une définition plus praticable ont dû nécessairement rester vagues. Tout au plus on pourrait soutenir que le vrai *idjmā'* a une force négative accentuant de cette manière l'esprit conservateur de l'Islam. Là où l'*idjmā'* est invoqué pour légaliser certaines pratiques nouvelles (*bid'a*), ce sont en réalité la coutume et l'usage (*'āda*) — excommuniés par la Loi — qui se font sentir et que le jugement arbitraire des légistes déclare pour *idjmā'*. C'est donc le cours du temps qui vient ici au secours de la théorie, impuissante en elle-même.

Nous constatons donc que c'est le manque d'organes interposés entre Dieu et sa Loi d'un côté et l'homme de l'autre côté qui rend l'exercice pratique de la démocratie, telle que nous l'entendons, illusoire.

Il est vrai que le manque d'institutions démocratiques ne caractérise par moins beaucoup d'autres systèmes orientaux où l'autorité du souverain a souvent très peu de contre-poids au sein des groupes sociaux ou chez les représentants de ceux-ci. Tout de même, si nous limitons notre attention aux deux empires dont les insti-

tutions ont eu le plus d'influence sur le développement politique de l'Islam, nous discernons dans tous les deux des forces sociales réelles qui, sans être démocratiques au sens moderne, sont à même de contrebalancer, tantôt plus et tantôt moins, le pouvoir central. Dans l'empire des Sassanides aussi bien qu'à Byzance, il y a le clergé qui est reconnu par la tradition et par sa structure hiérarchique comme un élément social indépendant du souverain. Il en est de même pour la féodalité qui, dans l'histoire des deux empires, s'est montrée plusieurs fois capable d'ébranler le trône. Quelque élevée que fût la position théorique des Césars et des Khosroës, la réalité des autres pouvoirs sociaux n'était jamais niée ou ignorée dans l'idéologie politique.

Il ne s'agit pas ici de la manière dont cet état de choses s'était développé dans l'histoire, car évidemment les institutions gouvernementales de Byzance avaient un passé bien plus démocratique que celles de l'empire persan. L'essentiel est que, dans les deux cas, le problème du gouvernement d'un grand empire sous un seul souverain avait trouvé une solution dans laquelle l'existence d'autres pouvoirs humains se trouvait reconnue.

Il est vrai que, dans l'empire des califes, le même groupement de pouvoirs sociaux s'annonce dès le commencement et qu'il a été la plupart du temps une réalité incontestable. Mais ce qui fait différer cette situation de celle dans les deux empires plus anciens c'est que la théorie de l'Islam n'a jamais voulu reconnaître l'existence d'institutions humaines autonomes à l'intérieur de la grande communauté des croyants. Il est très probable, bien que de telles choses ne puissent jamais être prouvées, que cette attitude théorique n'a pas été sans influencer profondément l'évolution de la civilisation mahométane dans l'histoire, une fois que les conceptions sociologiques et politiques se furent affirmées pour de bon dans les esprits, ce qui a eu lieu au cours du III^{ème} siècle de l'Islam.

La possibilité de pouvoirs autonomes est simplement ignorée par l'Islam. Ceci n'est jamais dit expressément dans les sources, parce que c'était une „tache aveugle” dans l'organe visuel des docteurs. Mais, une fois cette lacune reconnue, nous pouvons la mettre en rapport direct avec la doctrine théocratique dont tout le système de l'Islam se trouve imprégné. La toute-puissance de Dieu, dévolue sur terre à son vicaire, ne supporte l'existence d'aucune puissance dérivée d'une autre source. La reconnaissance d'autres pouvoirs autonomes sur la terre ne serait autre chose que polythéisme (*shirk*). C'est la même atti-

tude qui règne dans le domaine de la théologie et qui fait rejeter l'idée que Dieu pourrait avoir des qualités ayant une existence à elles propres en dehors de l'essence divine. Le domaine terrestre n'étant pas séparé rigoureusement du domaine surnaturel de l'au-delà, il s'ensuit que le gouvernement de tous deux est soumis aux mêmes principes. Et de même que Dieu délègue une partie de son pouvoir gouvernemental à son vicaire, le calife, celui-ci peut déléguer à son tour certaines compétences à d'autres humains; seulement tous sont en somme les exécutants du pouvoir théocratique absolu. Si l'on étudie de ce point de vue les multiples fonctions politiques décrites par al-Māwardī dans ses „Institutions Gouvernementales” on aperçoit que nulle part il n'est question d'autre chose que de délégation de pouvoir (*tafwīd; taḳlīd*).

Dans ce système si peu démocratique à nos yeux, la démocratie est sauvée dans un certain sens par le fait que ni le souverain, ni ses délégués n'ont de pouvoir législatif; Dieu n'accorde à aucun humain le droit de modifier ou d'amender sa Loi (*sharī'a*). Il est vrai que le contenu de cette Loi ne peut être connu que grâce à des efforts considérables. Aussi la recherche des prescriptions légales est la tâche de toute la communauté et parmi elle c'est le calife qui doit être doué en premier lieu des capacités nécessaires pour décider ce qui est commandé par la Loi et pour résoudre les problèmes légaux. Mais il n'y a pas de législation proprement dite dans l'Islam, ni auprès du calife ni auprès d'autres organes.

Évidemment la pratique exige partout et toujours des décisions qui sont réellement législatives. Seulement la théorie ne les reconnaît pas comme telles; selon elle, ce ne sont que des décisions incidentelles. Elles ne sont jamais réunies dans des codifications ayant autorité à côté des livres qui décrivent la *sharī'a*.

Mais la bonne application des commandements divins est une tâche hautement recommandée aux princes. Non moins à leurs délégués et surtout aux juges qui sont chargés de l'administration de leur justice. La justice ou l'équité (*ʿadl, ʿadāla*) est une qualité humaine très décorative et très louable, mais qui n'a rien de divin. L'histoire des idées des Muʿtazilites le prouve. Le sentiment de justice n'est pas considéré comme un pouvoir dirigeant dans le monde. Cette conception présente un contraste bien réel avec, par exemple, la tradition iranienne telle que nous la trouvons dans les narrations sur les rois Sassanides et dans les multiples anecdotes sur leur justice, par laquelle ils assuraient le bon fonctionnement des affaires dans leur empire et dans le monde en général.

Dans la conception des Iraniens la justice, un des aspects de l'hypostase de l'*arta* avestique (*arta* dans l'inscription de Xerxes), avait une tout autre importance. Elle figurait à côté d'autres hypostases, parmi lesquelles celle de la domination (*hšātra*), comme puissance surnaturelle et en même temps sociale dans le système cosmologique du Mazdéisme, système qui s'éloigne considérablement de l'unité de la divinité telle que l'enseigne l'Islam. Dans l'empire byzantin également vivait encore la conception, moins doctrinaire, des abstractions avec lesquelles opérait la pensée hellénistique, mais qui, pas plus que l'idéologie iranienne, ne pouvait aboutir qu'au polythéisme du point de vue islamique.

À côté de la négation de forces autonomes dans la société et dans le monde, il y a lieu de considérer ici un autre trait caractéristique, qui est propre à l'idéologie islamique et qui est en même temps le complément de la particularité relevée ci-dessus. Cet autre trait consiste dans l'impossibilité, pour la pensée islamique, de se représenter un groupe d'êtres humains comme une collectivité autonome ayant une individualité à part des individualités de ses membres. Ceci encore est un aspect négatif.

Dans le domaine du droit il est bien connu que la personnalité juridique est chose inconnue ¹⁾. La loi islamique se trouve ici dans la même phase de développement que le droit romain ancien ²⁾ et, bien qu'il eût pu emprunter des conceptions plus développées au droit hellénistique des pays conquis, il en est resté à ne voir dans chaque corporation qu'un ensemble d'individus qui, comme dans la figure de la société (*shirka*), étaient seulement liés par les obligations des participants individuels entre eux-mêmes et envers des troisièmes.

Il en est de même pour les institutions administratives dont a besoin le gouvernement. Ainsi l'Islam ne connaît d'autre juridiction que le juge unique; les tribunaux dans les pays mahométans modernes y ont été introduits d'après le modèle pris dans les pays occidentaux ³⁾. Un exemple classique de la réaction violente de la

¹⁾ Bergsträsser, *Grundzüge des islamischen Rechts*, Berlin und Leipzig 1935, p. 37.

²⁾ Voir L. Schnorr von Carolsfeld, *Geschichte der juristischen Person*, München 1933.

³⁾ Dans son beau livre sur l'*Histoire de l'organisation judiciaire en pays d'Islam* (Paris 1938), Tome I, M. Tyan, tout en exposant correctement la règle de l'unité du juge (p. 313 suiv.), va trop loin, à mon avis, quand il donne au chapitre relatif à cette matière le titre de „Composition du Tribunal”. Bien que le *kādi* invoque en beaucoup de cas l'assistance de conseillers, il n'y a jamais question d'un vrai tribunal. Les mots *maḥkam* (dans le *Vocabulista* du XIII^{ème} siècle, voir Dozy) et *maḥkama*, dans le sens de tribunal, n'apparaissent que dans les milieux où l'influence occidentale se fait sentir.

conscience musulmane contre un conseil chargé de donner une sentence judiciaire est fourni par la révolte des Khāridjites contre les arbitres institués pour décider sur les titres de 'Alī et de Mu'āwiya au califat. Leur devise „C'est à Dieu seul qu'appartient le jugement" (*lā ḥukma illā li'llāh*) est une expression éloquent de ce sentiment.

Le prince peut instituer un gouverneur ou un juge ou un commandant de troupes pour exécuter une partie des fonctions qui lui sont dévolues à lui-même de la part de Dieu. Mais jamais il ne peut nommer un conseil, un collège ou une commission. Donc pas de tribunaux, pas de conseils royaux, pas de municipalités, pas de corporations humaines exerçant comme telles des fonctions légales ou administratives.

Cet état de choses n'a pas moins ses racines dans la conception de l'unité absolue de Dieu. Dieu n'a à faire qu'avec les individus humains qui, chacun pour soi, sont responsables envers Lui. Un seul individu, comme le calife, peut être revêtu d'une certaine autorité, qu'il peut déléguer à son tour à d'autres individus, mais un groupe servant comme tel cette autorité est inimaginable. Cela amènerait à la constitution de nouvelles entités surhumaines et l'acceptation de ces entités, même si elles étaient créées par le pouvoir légal, aurait comme conséquence inévitable qu'elles auraient une autonomie intérieure propre à elles-mêmes. Et on retomberait dans le polythéisme.

C'est du même point de vue qu'on peut envisager l'absence d'une organisation ecclésiastique dans l'Islam. Un clergé comme corporation reconnue, de même que d'autres groupes organisés, comme des collèges pontificaux et des conciles, aurait une autorité offensive et intolérable dans le système théocratique tel que le conçoit l'esprit de l'Islam. Donc pas d'église islamique.

La seule communauté humaine que reconnaisse la théorie est celle de tous les croyants ensemble, l'*umma* ou, dans un sens plus politique, la *djamā'a*. La conséquence est que les communautés non-islamiques qui vivent dans la société musulmane sont reconnues comme ayant une indépendance autonome sous leurs propres chefs. Ces groupes sont en effet hors de la loi islamique et ne doivent donc pas être jugés selon les mêmes principes.

L'autorité de l'*umma* est expressément reconnue par la théorie de l'*idjmā'*, mais on sait quelle difficulté les docteurs de la Loi ont eu à lui donner un semblant de réalité effective. Traduit en termes

de notre temps cela signifie que la démocratie, reconnue en principe comme corollaire de la théocratie — Dieu d'un côté et la communauté des croyants de l'autre côté —, est rendue inefficace par le manque de corps reconnus qui, dans le sens moderne de la démocratie, sont indispensables pour en assurer l'organisation.

Dans le début de l'Islam la notion de corps constitués n'a pas été entièrement inconnue. Dans le Koran même, Fir'awn, le roi d'Égypte, est entouré d'une espèce de conseil royal (*mala'*) qu'il consulte pour les décisions à prendre. Il existe même un tel conseil céleste des anges (*sūra* 37, 8; 38, 69). L'organisation communale de la Mecque a connu également une sorte de conseil (*nadwa, nādī*). On pourrait encore penser au conseil (*shūrā*) institué par le calife 'Umar pour choisir son successeur. Le mot *shūrā* est sans doute emprunté à *sūra* 42, 38, qui pose comme marque distinctive des croyants qu'ils se consultent mutuellement. En discutant le procédé à suivre à l'occasion du choix d'un nouveau calife, un juriste comme al-Māwardī se montre même embarrassé par l'idée de la *shūrā*, car il exige encore que l'*idjmā'* fasse droit aux décisions prises¹⁾. On constate en tout cas que cette méthode n'a jamais fourni une tradition bien établie dans les institutions gouvernementales.

Il semblerait même que la langue arabe prête à ignorer la conception de groupements humains supra-individuels. Les pluriels dits „internes”, qui paraissent être pour une grande partie des collectifs d'origine, n'auraient pu obtenir une si grande extension d'emploi pour des pluriels de personnes si l'idée de la collectivité humaine n'avait pas été difficile à concevoir; on ne les pouvait interpréter que comme des groupements de personnes. Et, autre fait linguistique, des termes abstraits indiquant des dignités telles que *khalīfa, imām* et *sultān* — et plus tard *dawla* — ont fini par figurer, suivant l'intérêt de la langue, les individus revêtus de cette dignité.

Nous ne voulons pas prétendre évidemment que l'histoire de l'Islam ne serait pas remplie de phénomènes qui ont leur source dans la formation de groupes sociaux, religieux ou politiques. Mais la catholicité de l'Islam a toujours réagi plus ou moins violemment contre ces tendances. Ainsi les grandes crises qui ont ébranlé la communauté islamique au premier siècle de son existence étaient justement causées par la séparation de partis politiques tels que les Khāridjites et les Shī'ites. La Shī'a est toujours restée stigmatisée

¹⁾ *Maverdī Institutiones Politicæ*, ed. Enger, Bonn 1853, p. 17.

par l'étiquette de "parti", désignation qui devait la condamner désormais aux yeux de la catholicité sunnite. On pourrait même maintenir que la Shi'a a été en pratique plus tolérante vis-à-vis des groupes autonomes, comme les corporations des arts et métiers. Celles-ci en effet ont prospéré davantage dans des milieux où prévalaient des idées shi'ites¹⁾ que sous des gouvernements non-shi'ites, qui les supprimaient plutôt.

Quant à l'existence des madhhabs dans le domaine du fiqh, bien qu'ils aient été le résultat de très réels conflits d'ordre spirituel, la doctrine catholique les a canonisés comme des „directions”, parmi lesquelles tout musulman peut faire son propre choix. Et à l'intérieur du madhhab il n'y a non plus une autorité absolue qui s'interpose entre le croyant et le Législateur. S'il y a autorité c'est une autorité verticale, dans le sens chronologique. L'autorité de la tradition se trouve renforcée par les imperfections de l'autorité temporelle et séculière.

Il serait difficile d'appuyer ce qui a été exposé ci-dessus par des textes de doctrine, parce qu'il s'agit justement de conceptions et d'institutions qui manquent dans le système de l'Islam. On ne peut pas exiger de ces textes qu'ils attirent particulièrement l'attention sur des choses qui échappent à la vision intérieure des théoriciens de l'Islam.

Cependant il y a un auteur qui, tout en restant imbu de l'idéologie islamique, a donné un tableau des forces qui opèrent dans la société humaine et cela sur une base assez large pour y intégrer des phénomènes qui l'obligent à affronter dans une certaine mesure les problèmes sociaux et politiques qui sont posés par l'existence de groupements humains et par les conflits d'autorité qui en découlent. Nous voulons parler d'Ibn Khaldūn et de sa célèbre *Muḳaddima*.

Il y a treize ans le professeur H. A. R. Gibb a réfuté une manière de voir qui considérerait cet auteur comme une figure rendue tout à fait exceptionnelle dans la littérature de l'Islam par l'absence presque complète des préjugés propres à son entourage religieux²⁾. Or l'étude des idées d'Ibn Khaldūn du point de vue qui nous intéresse ici semble donner pleinement raison aux arguments de M. Gibb et faire connaître le fameux historien comme un homme qui se place entièrement sur le point de vue islamique.

¹⁾ Voir l'article *Karmates* de L. Massignon dans l'*Encyclopédie de l'Islam*, à la fin.

²⁾ H. A. R. Gibb, *The Islamic Background of Ibn Khaldūn's Political Theory*, *Bulletin of the School of Oriental Studies, London*, VII: 1933-35, p. 23 suiv.

Ibn Khaldūn analyse les forces qui opèrent dans la société humaine et, en faisant ceci, il envisage apparemment sans préjugés les phénomènes qui se présentent à lui parmi le vaste matériel historique embrassé par ses profondes connaissances. Mais il interprète ces forces d'une façon entièrement islamique. Selon lui ce sont des agissements aveugles qu'il faut accepter avec un fatalisme résigné. Leur origine est dans la nature de l'homme et de la société humaine (*ṭabī'at al-'umrān*); les institutions naturelles des humains sont "nécessaires" (*darūrī*) et par là gouvernées par la fatalité.

Ces lois inévitables sont de nature sociale, économique et politique; elles gouvernent l'état nomade ou sédentaire des peuples, la façon dont ils pourvoient à leur subsistance et leur organisation politique. C'est seulement dans le domaine de la politique qu'Ibn Khaldūn oppose un ordre divin (*sharī'a*) à l'ordre naturel. Il commence à développer ces dernières idées dans le paragraphe 4 de la IIème section du livre¹). Les faits sociaux et économiques qu'il décrit avec grande lucidité échappent à sa critique religieuse et restent abandonnés au jeu fatal des forces naturelles.

Or dans la description des forces qui sont actives dans la société humaine, Ibn Khaldūn connaît très bien le phénomène de la formation des groupes. Ces groupements naturels, qu'il appelle *'aṣabiya*, sont même le thème principal sur lequel il construit sa démonstration. La formation des groupes a lieu par nécessité parce que les individus doivent s'entraider et collaborer pour se maintenir dans le monde (I, 1). C'est notamment dans l'état nomade de la société que ce besoin de former des groupes est impérieux. La base du groupe est en premier lieu la parenté. L'auteur cite (II, 7) la narration koranique des frères de Yūsuf qui disent qu'il n'y a pas de danger que leur frère soit dévoré par le loup tant qu'ils forment une bande bien liée (*'uṣba*, sūra 12, 14). C'est de la même racine qu'est dérivé le terme *'aṣabiya*, qui ne paraît avoir eu sa place dans le vocabulaire arabe que depuis Ibn Khaldūn.

Mais notre auteur, en bon musulman, est loin d'approuver la *'aṣabiya*, qui, nécessairement, mène à l'effusion de sang. Bien qu'elle soit inévitable dans l'état naturel des peuples, le législateur divin condamne la *'aṣabiya* où il dit que celui qui est le plus honoré auprès

¹) Nous citons la *Muḥaddima* d'après les sections (*faṣl*) et leurs subdivisions ou paragraphes (nommés *muḥaddima* dans la première section et *faṣl* dans les sections suivantes) du seul livre dont se compose ce traité.

de Dieu est celui qui est le plus pieux (sūra 49, 13). Le prophète a dit: Dieu vous a libérés de la bravade (*'ubbīya*) du paganisme (III, 28). Ainsi la *'aṣabiya* est une chose qui doit être vaincue par le nouvel ordre de la prophétie (*nubūwa*).

Dans l'exposé d'Ibn Khaldūn le problème de la *'aṣabiya* est toujours accompagné de celui du principat (*siyāsa*). La présence d'un chef qui sait guider le groupe n'est pas moins une des nécessités de la nature. Le groupe humain a besoin d'un conducteur qui maintient l'ordre et grâce auquel seulement il peut atteindre son but dans la société. Dans la société nomade ce dirigeant est un simple chef (*ra'īs*) qui lui-même dépend sous beaucoup de rapports des tendances du groupe même (II, 28). Lorsqu'il réussit à consolider son pouvoir il devient plus indépendant et obtient la royauté. Mais le roi n'en reste pas moins soumis à la fatalité naturelle; il ne peut pas assurer le bien-être spirituel des gouvernés tant que sa position n'est pas appuyée par une devise religieuse (*ṣiḡha dīniya*). C'est cette idée qui est formulée par Ibn Khaldūn quand il dit que la royauté appartient aux „choses relatives” (*al-umūr al-iḏāfiya*) c.-à-d. aux institutions dont la valeur est déterminée par une relation (*iḏāfa*) (III, 24). La royauté doit donc être consacrée par la soumission à l'ordre divin voulu par la *sharī'a*. Alors la royauté se change en califat et devient un imperium (*dawla 'ammātū'l-istilā'*) (III, 4). On remarque ici la tendance à dénier toute autorité à un pouvoir ayant son origine dans un milieu humain. Omnis potestas a Deo.

En nous tenant au problème du caractère démocratique de l'Islam nous voulons examiner maintenant un peu plus en détail les idées d'Ibn Khaldūn sur la souveraineté, sur les organes du gouvernement, sur l'ordre des autorités religieuses et sur les collectivités d'ordre secondaire telles que les villes et autres unités territoriales.

La royauté, qui naît du groupe de la *'aṣabiya*, est un rang naturel (*manṣīb ṭabī'i*) (III, 23); le roi ne peut régner que par la force. Le chef de tribu est un simple conducteur (*sūdad*, également un collectif à l'origine), mais la royauté est quelque chose qui s'ajoute à la qualité de chef (II, 17). Le roi a besoin de vaincre les autres *'aṣabīyāt* qui voudraient se faire valoir. Il ne vient pas à l'esprit d'Ibn Khaldūn que plusieurs groupements politiques peuvent coexister au sein d'une coordination ou d'une subordination. Il faut que les *'aṣabīyāt* spéciales disparaissent (II, 11). Il est vrai que l'auteur connaît des royautés incomplètes (*mulk nāḳiṣ*), mais cette situation est très peu souhaitable ainsi qu'il le démontre par des exemples empruntés à l'histoire (III, 23).

On sait qu'Ibn Khaldūn aime à parler de la souveraineté du point de vue de sa continuité chronologique. Il parle alors de la dynastie (*dawla*). La *dawla* est soutenue par la *ʿaṣabiya* et une des théories les mieux connues de notre auteur est celle sur la naissance, la floraison et la décadence des dynasties; celle-ci également est une fatalité naturelle et est décrite en cinq étapes (III, 17).

La *dawla* est un groupe d'individus. Seulement c'est un groupe vertical dans l'ordre chronologique et, comme tel, elle est acceptable aux yeux d'un auteur musulman. Le mot *dawla* du reste a toujours gardé une certaine splendeur depuis le temps des Abbassides qui, les premiers, ont été décorés de cette désignation après qu'une révolution (*dawla*) mémorable les eut portés sur le trône¹). Ainsi ce mot n'est accompagné d'aucun faux-goût payen. Il cadre bien avec le gouvernement religieux tel qu'il est exigé par l'idéologie musulmane.

Il ne paraît pas superflu de remarquer que *dawla* ne doit jamais être interprétée chez Ibn Khaldūn dans le sens d'„état" qu'il a dans les langues de l'Islam moderne. L'idée d'état est inconcevable pour un légiste musulman, parce qu'elle implique la conception d'une collectivité humaine autonome. Si jamais un auteur islamique du Moyen-Age ait été à même de concevoir cette idée, c'est bien Ibn Khaldūn, après ses longues méditations sur le rôle de la *ʿaṣabiya* dans la construction de la société. D'autant plus qu'il connaît évidemment l'idée de l'état idéal (*al-madīna al-fāḍila*) des Anciens, idée qu'il a sans doute appris à connaître par al-Fārābī, bien qu'il ne nomme pas cet auteur. Ibn Khaldūn appelle cette forme de gouvernement *al-siyāsa al-madaniya*. Mais il n'y comprend rien. Pour lui c'est une agglomération (*mudjtamaʿ*) d'individus qui n'ont pas besoin de dirigeants et par conséquent incompréhensible pour lui (III, 52). D'autre part il discute une opinion existant parmi les Muʿtazilites et les Khāridjites selon laquelle une force dirigeante n'est pas nécessaire, si seulement on vit d'après les prescriptions de la *sharīʿa*. Mais, dit Ibn Khaldūn en bon Musulman, un tel état de

¹) C'est A. Mez qui le premier a souligné que le passage du sens de *dawla* „changement, révolution" à celui de „dynastie" a eu lieu pendant la propagande mahdiste qui précédait la révolte Abbasside. Voir la note sur la page VII de son édition d'*Abulkasim, ein bagdader Sittenbild*, Heidelberg 1922. Outre les vers cités par lui à l'appui de sa thèse, nous signalons encore ceux attribués à Naṣr ibn Sayyār par al-Dinawarī (dans la description de la fin du califat umayyade donnée dans la *Chrestomathie de Guirgass et Rosen*, p. 215). Naṣr dit au calife: „Je te mets en garde contre une *dawla* qui est conduite par un homme de parenté décisive." Les deux significations sont ici admissibles.

choses serait contraire à l'*idjmā'* et par suite inacceptable (III, 26). Le Koran du reste enjoint d'obéir au prophète et aux autorités (sūra 4, 59).

Une fois bien établie, une *dawla* n'a plus besoin de '*aṣabiya*, puisque son autorité repose sur une conviction religieuse (III, 1). Seulement il faut que les adhérents ('*aṣāba*) de la *dawla* soient bien répartis sur le territoire dominé par elle, pour que ses prescriptions puissent avoir force partout (III, 7). Sinon il pourrait arriver qu'une nouvelle '*aṣabiya* se manifeste dans une région éloignée du centre et que la *dawla* s'affaiblisse. L'auteur discute de l'éventualité où la *dawla* „se fend en deux”, comme ceci a eu lieu lorsque les Umayyades d'Espagne se sont dégagés de l'autorité des Abbassides (III, 4). Tout ceci montre que l'idée de la territorialité d'un gouvernement est aussi étrangère à la pensée d'Ibn Khaldūn que celui de l'état même. On sait que les géographes arabes ne connaissent que des régions purement géographiques; ils en décrivent les frontières, tandis que les frontières politiques sont quelque chose d'inconnu pour eux. Tout au plus ils indiquent les districts qui, à une certaine époque, payent l'impôt à tel ou tel souverain. L'histoire, du reste, montre suffisamment combien l'étendue de ce pouvoir fiscal était variable.

Il faut faire exception seulement pour le territoire de l'Islam (*mamlakat al-Islām, dār al-Islām*) dans son entier. Ceci paraît être une conception réelle qui se place à côté de celle de la communauté entière (*umma*).

Quant aux organes inférieurs du gouvernement, Ibn Khaldūn reconnaît que ceux-ci ont également leur origine dans la '*aṣabiya*. Ce sont des aides, grâce auxquels le chef sait se faire obéir. A mesure qu'il s'établit une royauté, les liens personnels entre le souverain et ses aides s'affaiblissent; ces derniers deviennent des clients (*mawālī*) et des attachés (*muṣṭana'ūn*) (III, 20). Ceci est la situation qui se présente dans une *dawla* bien établie; l'exemple classique est ici encore celui de la première époque du califat Abbasside, où les clients et surtout les „fils de la dynastie” (*abnā' u'l-dawla*) avaient une position privilégiée dans l'empire. Il faut donc qu'il y ait dans la *dawla* un groupe de fonctionnaires (*ridjāl al-dawla*) à qui les grades et les fonctions (*marātib kbādimā*) sont confiés (III, 32).

Dans l'Islam ces fonctions gouvernementales (*wazā'if sulṭāniya*) sont entièrement subordonnées au califat (III, 35) ou à la *dawla*. Elles doivent être sanctionnées par la religion et sont régies par les prescriptions de la *sharī'a*. Pour celles-ci Ibn Khaldūn renvoie

au traité d'al-Māwardī. Il ajoute expressément que son but est de décrire ces fonctions pour autant qu'elles concernent la nature de la société humaine. Aussi dans la description qui suit du vizirat, cette dignité est décrite purement comme une institution qui a existé de tout temps pour alléger les multiples devoirs du souverain.

Il paraît cependant que ce vizirat ne répond pas à l'idéal religieux tel que le conçoit Ibn Khaldūn. Il dit qu'au commencement de l'Islam tous ces grades (*rutab*) et qualités (*khiṭaṭ*) avaient disparu par le fait que la royauté était alors remplacée par un ordre de choses où ils étaient superflus, parce que le prophète avait l'habitude de prendre conseil (*mushāwara*) avec ses compagnons. Aussi c'est dans un sens impropre qu'Abū Bakr était nommé le vizir de Muḥammad par ceux qui étaient versés dans les institutions gouvernementales des Persans et des autres peuples (III, 35). On constate ici l'idéalisation de la démocratie primitive de l'Islam, qui n'a pu être maintenue après les premiers quatre califes "bien-guidés". La délégation du pouvoir souverain (*tafwīḍ*, *niyāba*) et tout autant la formation d'une hiérarchie des fonctionnaires de la „plume” et de l'„épée” est donc considérée comme un mal inévitable, mais qui avait dû être réglé par la *sharī'a*¹⁾. Le plus significatif ici est qu'Ibn Khaldūn ne peut pas s'imaginer une solution dans laquelle les aides et conseillers originaux gardent des positions plus indépendantes.

La même manière de voir se révèle d'une façon curieuse dans un passage où Ibn Khaldūn parle des autorités religieuses (vers le milieu du paragraphe III, 32). Il dit que les qualités califiennes (*al-khiṭaṭ al-khilāfiya*), en tant qu'elles regardent le maintien des institutions religieuses, après avoir été exercées par des gens capables et vénérés pour leur sollicitude envers la religion, avaient passé ensuite dans les mains d'une classe de gens opprimés et dépendants (*sinf min al-mustaḍ'afin*) dans les différentes régions. Ceux-ci, par leur manque de capacité, avaient perdu l'estime dont ils avaient joui auparavant au sein de la *dawla*. Ils n'avaient plus rien de leurs anciennes prérogatives de dégager et de lier (*al-ḥall wa'l-'aḳd*). C'est

¹⁾ Ibn Khaldūn paraît s'approcher ici de la thèse du moderniste égyptien 'Abd al-Rāziq (voir L. de Vries, *Een Hypermodern Geluid in de Wereld van den Islam*, Leiden 1926) qui, comme lui, accentue la grande différence entre les institutions du temps du prophète et celles des siècles suivants. Seulement, tandis que 'Abd al-Rāziq en conclut que les institutions postérieures n'ont jamais eu rien à faire avec la religion, Ibn Khaldūn prend une tout autre tournure, entièrement islamique, en tâchant de représenter la situation réelle comme une réalisation incomplète de la condition idéale de l'Islam.

à tort que certains pensent que cette situation est justifiée et que les rois ont eu raison d'éloigner les faḳīhs et les kāḏīs de la consultation (*shūrā*). Il semble donc que notre auteur considère les docteurs de la loi comme une classe sociale (*ṣinf*) à part, mais qu'il ne peut concevoir leur véritable fonction que liée très intimement au calife-souverain. La situation réelle, telle qu'elle s'était développée depuis longtemps, à savoir que ces savants religieux étaient devenus les guides spirituels du peuple, ne cadrerait pas du tout avec la conception totalitaire du régime islamique et était par là inacceptable et damnable.

Dans le paragraphe où il traite des institutions cléricales auprès des Chrétiens et des Juifs (III, 34), Ibn Khaldūn fait preuve de compréhension pour un système où l'ordre des affaires religieuses n'est pas lié à l'ordre politique (*siyāsat al-mulk*). Mais il l'explique en disant que, dans ces autres religions, il n'existe pas l'obligation divine de soumettre les autres peuples par force à leur autorité comme c'est le cas dans l'Islam. C'est donc encore la conception théocratique qui l'amène à ignorer l'existence d'une classe à part d'hommes religieux, quelque réelle qu'elle se montrât dans le monde musulman. On ne peut pas se soustraire à l'impression que c'est avec quelque ironie qu'il décrit ensuite en détail l'hierarchie du clergé chrétien. En parlant des sectes chrétiennes il ne peut les expliquer qu'en supposant que chacune d'elles se maintient par l'appui d'un prince quelconque, qui, à son tour, est renforcé par leur autorité religieuse. La position de l'Empereur (*imbarādūr*) au-dessus des sectes est expliquée comme due à la '*aṣabīya*'. C'est un ordre naturel qui n'est nullement voulu par Dieu. „Mais Dieu fait errer ceux qu'Il veut et guide dans la voie droite ceux qu'Il veut”.

Les collectivités d'ordre secondaire enfin, c.-à-d. les villes (*al-mudun wa'l-amṣār*) ne sont, aux yeux d'Ibn Khaldūn, que des agglomérations naturelles qui naissent lorsque la collaboration des humains (*idjtimā' al-aydī*) a atteint un certain degré d'aisance (IV, 1). Cependant elles n'appartiennent pas même aux choses nécessaires et inévitables. Elles peuvent se former seulement après qu'il y a eu un prince et une *dawla* qui les fondent et qui les protègent. Elles n'existent que grâce à la *dawla* et sont condamnées à la ruine lorsque la *dawla* n'est plus capable d'en assurer l'existence.

Cette théorie est la conséquence logique de l'autre théorie, développée au commencement de la Muḳaddima, que l'état nomade précède toujours l'état sédentaire. Le prince, une fois que les forces de la '*aṣabīya*' lui ont procuré le pouvoir, a besoin d'un centre poli-

tique et d'une fortification pour se défendre contre ses ennemis (IV, 2).

Les habitants des villes ne sont pas seulement protégés par les gouvernants de la *dawla*; ceux-ci doivent aussi leur mettre un frein et les empêcher de commettre des agressions entre eux (II, 7).

Il est vrai que, parmi les citadins, il peut se produire de temps en temps un mouvement qui mène à la formation d'unités généalogiques (*bayt*), mais de telles formations ne sont que de semblances de *'aṣabiya*. Tout au plus c'est un ornement (*zukehruf*), mais qui manque de force naturelle (II, 12). Ailleurs, Ibn Khaldūn veut bien reconnaître que, dans les grandes villes, quelque chose comme la *'aṣabiya* peut se produire (IV, 21). Il y a en effet parmi les habitants toutes sortes de liens de parenté et d'alliance; lorsque la *dawla* qui est leur protecteur tombe en décadence, ils éprouvent le besoin de pourvoir à leurs propres affaires. Alors ils en reviennent à la consultation mutuelle (*shūrā*); parmi les factions qui se forment de cette manière il peut y en avoir une qui prenne le dessus et ainsi il se forme une petite royauté. Mais cet état de choses est ridicule aux yeux d'Ibn Khaldūn, et il ne peut pas être de longue durée, ainsi que l'auteur le démontre par l'exemple de plusieurs villes du Maghrib de son temps. „Mais Dieu reste victorieux dans Ses décisions!”

On ne peut s'imaginer une réfutation plus absolue de l'autonomie des collectivités urbaines que celle que donne Ibn Khaldūn. Il est vrai qu'en général l'histoire des peuples islamiques, qui lui fournit continuellement les preuves de ses assertions, confirme l'image qu'il nous donne. Il a quelque peine, évidemment, à défendre sa position dans le cas où de grandes villes ont continué à exister malgré la décadence des dynasties. Mais alors leur permanence a été assurée par des éléments nomades de l'entourage, comme dans la ville de Fez, ou bien par l'établissement d'une nouvelle dynastie comme au Caire lors de la conquête Fatimide (IV, 1). On pourrait lui objecter encore que plusieurs villes islamiques ont été de temps à autre de petites républiques autonomes. Mais c'est un phénomène rare qu'une ville garde cette autonomie passagère sous un gouvernement plus étendu.

Ibn Khaldūn recommande du reste aux princes de n'entraver pas outre mesure la libre action de leurs sujets (II, 6); cela tue leur initiative et leur confiance en soi-même (*idāl*). Il considère surtout comme une grave erreur que le souverain intervienne dans la vie économique, en prenant part au commerce des vivres et des autres

nécessités (III, 41). Une telle politique, que nous appelons socialisme d'état, est pernicieuse pour le bien-être des habitants des villes, parce que ceux-ci sont toujours dans une position inférieure vis-à-vis du pouvoir financier du prince. Tout au plus les gens aisés doivent être protégés par la *dawla* dans leurs propriétés. L'auteur prêche donc une politique économique libérale. Les lois économiques doivent pouvoir agir librement; elles appartiennent au domaine de la *ṭabī'a*. Dans la cinquième section du livre Ibn Khaldūn décrit justement la vie économique, surtout dans les villes. Dans ce domaine il reconnaît la nécessité de former ces groupes organisés qui collaborent pour obtenir une production plus élevée. Il est bien curieux d'observer que, tout en décrivant ces différents métiers, il ne souffle mot des corporations des arts et métiers, qui ont eu pourtant assez d'importance dans la société islamique. On peut soupçonner que son aversion contre les collectivités autonomes l'a rendu aveugle sur ce point.

On comprend d'autant plus que l'idée d'une organisation qui aurait quelque influence politique ait été encore plus éloignée de son esprit. La grande masse, selon Ibn Khaldūn, est incapable d'organisation par son état compact (*muṣāḥama*). C'est pour cette raison que le gouvernement doit être exercé par une petite minorité, ainsi qu'il le montre par des exemples empruntés à l'histoire (II, 21).

Nous terminons ici notre démonstration et nous concluons que la démocratie, telle que la connaît la théorie de l'Islām, est très imparfaite du point de vue de la démocratie moderne. Il vaudra certainement la peine d'examiner comment les tendances anti-autonomistes et anti-collectivistes ont agi et agissent encore sur les institutions démocratiques que beaucoup de peuples musulmans de nos jours ont introduites. On trouvera sans doute que la démocratie islamique moderne n'est pas la même chose que la démocratie occidentale et on se rendra compte de la justesse et la sagesse de l'observation d'Ibn Khaldūn que „la religion et la doctrine religieuse fournissent la forme à l'existence” (*al-dīnu wa'l-millatu ṣūratu li'l-wuḍjūd*) (IV, 22).

LA SOCIOLOGIE DE L'ISLAM*)

Le choix de mon sujet a été déterminé d'une part par la recommandation des organisateurs de notre congrès, qui ont prié de ne pas choisir un sujet trop spécial, afin qu'un nombre aussi grand que possible d'auditeurs soit intéressé. D'autre part c'est un des nombreux problèmes en rapport avec la nouvelle édition de l'Encyclopédie de l'Islam qui m'a décidé à parler de la *Sociologie de l'Islam*, dans l'espoir qu'une discussion de ce sujet puisse contribuer à son éclaircissement.

Dans sa forme la plus simple le problème est ceci: Faut-il insérer dans l'Encyclopédie un article sur la sociologie des peuples islamiques? Ou, dans une forme plus philosophique: Peut-on s'attendre à obtenir une connaissance plus complète de l'Islam en appliquant aux institutions des peuples islamiques les points de vue de la sociologie moderne?

On pourrait objecter que la pensée de l'Islam lui-même n'a pas développé une science ou une méthode scientifique pour étudier la société islamique, encore que plusieurs auteurs musulmans, notamment Ibn Khaldūn, présentent des observations très importantes sur l'ambiance sociale au milieu de laquelle ils vivent, et aient recherché les lois qui régissent les relations sociales.

Mais le but d'une publication comme l'Encyclopédie de l'Islam n'est pas seulement de fixer les faits tels qu'ils se présentent mais aussi de les apprécier en partant de certains points de vue qui appartiennent aux théories scientifiques modernes. Dans la première édition de l'Encyclopédie ces points de vue n'ont pas été mis en évidence d'une façon très complète, bien qu'on y trouve déjà des articles généraux comme sur l'art islamique, l'historiographie, le développement de la géographie, etc. Mais on y cherche en vain des articles généraux sur la position de la femme, sur les conditions économiques etc.

Ces articles doivent plutôt passer en revue les faits les plus marquants qui sont de nature à illustrer, tant par leurs détails que par leur ensemble, l'aspect typique que revêt le sujet indiqué par le titre de l'article au milieu des études islamiques.

*) Conférence faite au XXIIème Congrès International des Orientalistes, 1951, et publiée dans *Acta Orientalia* XXI p. 243-253.

Cette méthode se recommande plus spécialement pour l'étude de la sociologie, puisque, dans le demi-siècle passé, cette science s'est étendue à un ensemble important de faits. Il n'y a actuellement aucune institution dans une société quelconque, qui n'ait échappé à l'attention des sociologues. Cet état de choses a le désavantage que les sociologues devraient avoir une connaissance d'experts sur tout le terrain qui est actuellement couvert par leurs recherches, ce qui paraît certainement une tâche surhumaine.

Cependant, dans le cas que je présente ici à votre attention, la situation est différente. Ce ne sont pas les sociologues qui veulent étudier la société islamique, mais plutôt les islamisants qui veulent faire de la sociologie. L'islamisant qui veut appliquer la méthode sociologique à la société de l'Islam doit être sensé bien connaître les faits, mais il est obligé de se familiariser avec une manière de penser qui n'est pas inhérente à sa discipline. Il doit donc commencer par se mettre au courant du mode de travail des sociologues. Pour faire ceci il n'a point besoin de se former une opinion indépendante sur les maintes théories qui sont encore en vigueur sur les buts et les méthodes de la sociologie. Il suffit de poser un certain nombre de points de vue empruntés à la pratique sociologique. Cela le rendra à même de grouper les faits sociaux qui lui sont connus de ses études islamiques sous ces différents points de vue. Cette manière d'agir lui permettra de se poser des questions ou d'entrevoir des problèmes qui avaient échappé à son intérêt conscient tant qu'il étudiait ces faits seulement en partant de ce qui lui avait été suggéré par les sources dont il faisait usage.

Je ne veux pas prétendre que les islamisants n'ont jamais appliqué à leur science des méthodes sociologiques; on dispose au contraire d'études de grand valeur qui approchent par exemple le droit musulman ou l'organisation des corps de métier du point de vue sociologique. Mais un traitement général des faits sociaux sous ce point de vue, quelque concis qu'il soit, n'a jamais été entrepris et c'est justement ceci qu'on devrait attendre d'une esquisse sociologique dans le cadre de l'Encyclopédie de l'Islam.

Il y a un point sur lequel l'auteur d'un pareil article devrait avoir des convictions plus précises. C'est que, dans l'espèce, il devra faire de la „sociologie de la religion”, ainsi qu'on la nomme depuis les travaux qu'a donnés Max Weber sur ce terrain. C'est à dire qu'il doit être convaincu que l'Islam comme religion est pour quelque chose dans les faits sociaux qu'il veut relever. Cela ne veut pas dire qu'il doit

pouvoir expliquer tous ces faits par les tendances religieuses qu'il croit discerner dans l'Islam. Il suffit qu'il se borne à une série de faits qui lui semblent être typiques pour la société des peuples islamiques, ou plutôt pour l'ensemble des différentes sociétés dont il entrevoit l'existence parmi ces peuples au cours de leur histoire. En posant la question de cette manière l'islamisant sociologue sera obligé d'user de son propre jugement et de procéder par *idjtihād* aussi longtemps que ces études n'ont pas encore été poursuivies à tel point qu'un certain *idjmā'* se soit établi parmi les investigateurs.

Le jugement personnel devra être également appliqué lorsqu'on se demande quels sont précisément les faits qu'on veut étudier. Ici il serait souhaitable de faire une distinction entre la sociologie statique et la sociologie dynamique et de concentrer de préférence son attention sur les phénomènes statiques, tels qu'on les trouve dans les sources. Ces faits eux-mêmes peuvent servir de base pour les études de la sociologie dynamique, c-à-d. les développements et les évolutions qui agissent continuellement dans la société, mais qu'on peut connaître seulement en partant des faits établis par les recherches. Ceci entraîne une autre conséquence. Dans le cas qui nous occupe on ne devra pas étudier les faits établis indépendamment l'un de l'autre, d'un façon atomistique; il faut les envisager comme un tout dont les parties composantes sont reliées entre elles et forment sinon un système, du moins une collectivité de relations mutuelles.

Il va sans dire que ce programme est difficile à réaliser. La société islamique compte de larges périodes d'existence pendant une longue série de siècles et ce ne serait pas une bonne méthode d'étudier ensemble des phénomènes qui chronologiquement sont très éloignés l'un de l'autre. Si on veut embrasser une trop grande étendue chronologique on tombera facilement dans l'erreur de plusieurs études antérieures qui, en étudiant un certain aspect de la civilisation islamique, se servent de données qui sont sans doute importantes, mais qui sont trop éloignées dans le temps pour permettre d'arriver à des conclusions convaincantes.

Il faut cependant partir de l'hypothèse qu'il y a une unité ou du moins une interrelation de quelque sorte. Mais en vue des difficultés que nous venons de signaler il paraît recommandable de commencer par prendre en considération seulement les siècles où l'Islam a connu sa plus grande force sociale et politique. Cette période coïncide avec l'établissement définitif des institutions religieuses de l'Islam; elle s'étend du 3^{ème} au 6^{ème} siècle de l'Hégire (du 9^{ème} au 12^{ème} siècle de l'ère

chrétienne). C'est l'époque que M. Mez a nommé moins heureusement celle de la Renaissance de l'Islam.

Déjà pendant des siècles le monde de l'Islam était divisé en un assez grand nombre de sociétés autonomes qui avaient retenu chacune d'elles beaucoup de traditions pré-islamiques dans leurs territoires particuliers. Je crois néanmoins qu'une étude sociologique pourrait embrasser toutes ces sociétés ensemble si l'on se donne pour but de rechercher ce qu'elles ont de commun comme sociétés islamiques.

Je m'excuse d'avoir parlé si longuement de questions de méthode, mais j'ai pensé qu'il serait bon de formuler comment la tâche de donner une esquisse de la sociologie de l'Islam devrait être entreprise.

Qu'on me permette maintenant de faire passer en revue les phénomènes qui paraissent être typiques pour la société islamique du Moyen Age, sans toutefois avoir la prétention de vouloir les expliquer.

Commençons par le problème de la relation de l'individu à la collectivité. En d'autres termes: Est-ce que la société islamique peut être qualifiée d'individualiste ou collectiviste? On est généralement enclin à insister sur le caractère collectiviste de cette société. Théoriquement ce caractère pourrait être mis en rapport avec la religion même, qui prêche la soumission la plus absolue des humains à la volonté de Dieu et qui, dans sa théologie orthodoxe, donne une place bien modeste au libre arbitre. Naturellement la société islamique a connu de tout temps ses „figures de proue” qui ont pris la direction et ont été actifs, non seulement sur le plan politique, mais aussi sur le plan religieux et politique. Il y a aussi lieu d'attirer l'attention sur l'énorme littérature biographique de l'Islam, qui enrégistre avec soin une grande quantité de détails sur la vie de milliers de personnes qui ont été actifs dans la vie religieuse et politique, sans avoir toujours joué un rôle prépondérant. Le grand exemple est la *sīra* du Prophète et les biographies des *ṣaḥāba*, qui ont été suivies plus tard par un grand nombre de biographies qui prouvent que l'Islam savait conserver la mémoire de ses hommes distingués. Ces biographies ont souvent un caractère stéréotype, surtout celles des traditionnistes et des savants, et ne sont pas de nature à faire bien ressortir la personnalité. Les quelques autobiographies intéressantes que nous possédons sont une remarquable exception.

D'autre part l'attitude de l'idéologie islamique à l'égard de la collectivité me paraît être bien illustrée par la théorie de l'*idjma'* dans la doctrine du *fiqh*; elle prouve quelle importance on attache

aux convictions de la collectivité comme expression des tendances de l'*umma*. Pour ce qui est de la réalité historique, on devrait encore étudier dans quelles mesures de grandes manifestations de masses populaires ont influencé le cours de l'histoire. Je voudrais enfin attirer l'attention sur le fait que, dans l'histoire de l'art musulman, les architectes et les artistes décorateurs restent presque toujours anonymes, ce qui présente un contraste marqué avec la tradition philologique où les noms des poètes et des auteurs nous sont traduits avec grande précision.

Ce sujet touche à celui des conditions démographiques qui jouent un si grand rôle dans la sociologie moderne. A défaut des sources nous sommes très mal informés sur la grandeur et la structure des populations dans les pays et les villes de l'Islam au Moyen-Age. Les géographes donnent quelquefois des indications sur le nombre des mosquées et des bains publics et on a quelquefois tâché d'en tirer des conclusions. Toutefois ces indications doivent être acceptées avec réserve. Ibn Hawkal dit que la grande mosquée de Palerme peut contenir 7000 personnes. Dans les manuscrits qui étaient autrefois connus cependant une corruption du texte faisait dire à cet auteur que c'était seulement la Mosquée des Bouchers qui pouvait contenir ce nombre de personnes. En se basant sur cette donnée Amari avait calculé que Palerme a dû avoir une population d'environ 350.000 habitants à la fin du 4ème siècle de l'Hégire, ce qui paraît être excessif. A part ceci les indications des auteurs eux-mêmes doivent être souvent exagérées. Nous sommes donc encore loin d'avoir une idée claire de la population, son étendue et sa répartition sur les diverses parties des pays de l'Islam à l'époque de l'épanouissement de la civilisation. On dispose même de plus de données sur les non-musulmans, qui devaient être comptés dans les divans pour la cote de la capitation.

La densité de la population devrait être aussi étudiée en rapport avec l'opinion prévalante sur la désirabilité d'avoir une grande progéniture. Il est vrai que, dans les traités du *fiqh*, le mariage est recommandé, non seulement pour échapper à l'immoralité, mais aussi pour engendrer des enfants, mais pour autant que je sache ce commandement n'est jamais mis en relation avec la nécessité d'augmenter la population islamique, par exemple pour la rendre supérieure aux non-musulmans. Il est permis de supposer que ceci aurait été considéré comme une attitude peu pieuse, parce que la naissance et la mort sont dans la main de Dieu, qui seul connaît le nombre de Ses créatures.

La question de la progéniture est aussi liée aux institutions familiales qui revêtent dans l'Islam un aspect particulier parce que la Loi de l'Islam permet de prendre quatre épouses, ainsi que par l'institution du divorce *talâk*, qui serait de nature à donner à la famille un caractère moins stable par exemple que dans une société chrétienne. Les sources dont nous disposons cependant donnent l'impression que la différence n'est pas aussi grande qu'on pourrait penser et que la polygamie et le *talâk* n'ont pas été pratiqués dans une si grande mesure au point de porter une sérieuse atteinte à ce que nous appelons la vie familiale. On peut déduire de beaucoup de biographies que l'influence des parents sur le développement spirituel et social des enfants a été bien prononcée, mais cela a dû varier naturellement selon les coutumes locales. Tout au plus pourrait-on dire que la vie de famille dans la société musulmane comprend souvent un groupe familial plus étendu que le père, la mère et les enfants. Il y aurait alors peut-être des liens traditionnels avec les conditions de famille qui prévalaient dans l'Arabie au commencement de l'Islam. Probablement le nombre des hommes célibataires a été toujours très grand dans l'Islam. Quant à la femme, peu en vue dans la vie publique, c'est au sein de la famille qu'elle trouve une ample compensation.

Avec la famille nous sommes déjà entrés dans le domaine de l'étude des groupes sociaux. La famille appartient aux groupes appelés biologiques et on peut dire la même chose des groupes constitués par les tribus nomades. Presque partout dans la société musulmane du Moyen-Age on constate l'existence de la vie nomade ou semi-nomade à côté de la vie sédentaire et partout on a plus ou moins conscience que la vie sédentaire s'est développée sur la base d'une société nomade. Ceci a été formulé avec assez de précision par Ibn Khaldūn. Il resterait encore à examiner si cette théorie est réellement conforme à l'histoire. En tout cas la conscience chez les individus et les groupes, qu'on trouve presque partout, d'être issus d'une souche tribale paraît avoir été tellement dominante qu'elle a retardé longuement le sentiment d'unité supertribale, nationale ou politique. La conscience tribale a pu s'élever quelquefois à des sentiments de race, comme c'était le cas chez les Arabes du premier siècle de l'Islam et chez les autres groupes raciaux qui existaient à cette époque. Mais, comme on le sait, les convictions religieuses ont plutôt agi à l'encontre de ces tendances, parce que, au sein de l'*umma* les différences de race et de nation n'étaient pas reconnues.

Sous ce point de vue les non-Musulmans, les Chrétiens et les

Juifs, constituent des groupes bien plus distincts. Mais on ne peut pas dire que, dans la plupart des cas, ces groupes vivaient dans un isolement social au milieu de la société musulmane. Celle-ci au contraire a pris une attitude tolérante. La situation était plutôt telle que les non-Musulmans venaient à former des classes sociales dont les membres exerçaient certaines fonctions économiques ou professionnelles, comme celle du commerce de l'argent ou de la médecine.

Nous en sommes venus ainsi à l'étude des classes sociales dans le milieu musulman. Cette partie de la sociologie de l'Islam a été déjà étudiée plusieurs fois; il a été démontré que la structure sociale à cet égard présente des traits assez uniformes dans tout le domaine de l'Islam. Une influence bien perceptible de la religion se manifeste dans l'existence de la classe des „savants de la religion”, des *'ulamā'*, qui a pris naissance à l'époque des Umayyades. Ce sont les guides spirituels de la société islamique; une grande partie d'entre eux se charge de donner l'instruction à tous les âges et d'autre part ils servent les gouvernants en qualité de juges ou comme scribes. Dans un sens plus large on peut associer à cette classe les savants qui s'occupent de diverses sciences comme la philologie et la lexicographie, et même les sciences dites „non-islamiques”, comme la mathématique et la philosophie. Cette classe se compose des représentants de la civilisation intellectuelle, sanctionnée par la religion.

A côté d'eux il y a la classe des dirigeants, des gens du gouvernement, qui se groupe autour du souverain. Ils sont moins nombreux que les *'ulamā'*, mais ce sont eux qui disposent du pouvoir temporel pour maintenir l'ordre et pour protéger une communauté quelconque contre des attaques venant du dehors.

Les deux groupes ou classes que nous venons de nommer ne sont pas délimitées très distinctement l'une par rapport à l'autre. Prises ensemble elles sont souvent comprises dans l'idée exprimée par le mot *khāṣṣa*, opposé à *'amma*, ce qui indique le reste de la société. Ces appellations sont cependant trop générales pour indiquer des classes précises. Elles sont nées dans l'entourage des princes et sont plutôt de tradition iranienne.

Les classes sociales inférieures, les *'amma* ou *'awāmm*, sont composées globalement d'une part des gens du commerce, des artisans, des paysans et des éléments nomades, d'autre part de la soldatesque. Celle-ci est souvent d'origine très variée, mais parmi elle, à maintes époques de l'histoire, les éléments nomades ou semi-nomades,

soit Arabes, soit Turcs, soit Berbères, ont occupé une place prépondérante. Dans tous ces groupes l'influence des institutions religieuses est pratiquement absente. Seulement après l'extension du mysticisme populaire, il y a eu des groupes, comme surtout les corporations de métier, les *asnāf*, et quelquefois des groupements militaires, qui se sont donné des traditions et des attitudes religieuses. Le mysticisme a quelquefois agi très profondément sur la structure de la société, mais il a rarement fait naître des groupes distincts.

Les classes dans la société islamique ne sont pas des classes fermées dans le sens qu'il est difficile de passer d'une classe à l'autre. Bien que l'existence des classes soit sentie assez distinctement dans la conscience sociale, les classes ont pourtant un caractère assez flottant. Il arrive qu'un individu fasse en peu de temps des bonds étonnants sur l'échelle sociale et le contraire n'est pas moins fréquent. Cet état de choses répond certainement aux convictions religieuses qui ont appris par le Koran que Dieu élève et humilie ceux qu'Il veut. Sous ce rapport on ne peut pas dire qu'il y ait parmi les membres d'un même groupe un sentiment bien prononcé d'avoir des intérêts communs à défendre; d'autre part lorsque l'occasion se présente, des manifestations de loyauté et de camaraderie ne font pas défaut.

On ne peut pas dire que l'institution de l'esclavage, telle que la connaît l'Islam, a jamais fait naître une classe sociale. Les origines des esclaves sont trop différentes pour leur donner la cohésion requise pour cela. L'esclavage a du reste une empreinte bien islamique, en tant que les esclaves sont toujours d'origine non-musulmane et adoptent presque toujours l'Islam. Après leur manumission ils deviennent de plein droit membres de la communauté de l'Islam. L'institution de l'esclavage est ainsi une porte par laquelle la population islamique est renforcée continuellement par des éléments qui n'en faisaient pas partie à l'origine.

En rapport avec les classes sociales il faut encore signaler l'étude de la distribution de la population sur les villes, la campagne cultivée et les régions désertes. L'origine des villes en territoire d'Islam ne peut jamais être reliée immédiatement à la religion. Pour autant que c'étaient des villes pré-islamiques elles ont gardé leur importance pour des raisons économiques ou militaires, et les villes nouvellement fondées dans l'Islam doivent le plus souvent leur fondation aux nécessités militaires, comme au temps des conquêtes arabes, ou bien au besoin des dynasties, soit pour leur créer une résidence spéciale, soit pour des raisons militaires. C'est seulement dans quelques cas bien

connus que les villes deviennent des centres religieux qui se sont formés au cours de l'histoire. Chaque ville possède dans sa grande mosquée (*djāmi'*) un centre urbain de première importance. C'est ici que s'est concentrée la vie scolaire et religieuse en général. Ainsi on peut dire que la classe des „savants de la religion” est plutôt urbaine, bien que beaucoup de grands seigneurs aient des résidences de campagne. Les artisans et les commerçants également sont liés à la ville.

Les villes et la société urbaine ont été plusieurs fois étudiées. On peut dire que les villes en territoire d'Islam ont beaucoup de traits caractéristiques en commun, tant dans leur plan topographique général — qui se groupe autour de la mosquée, le palais du gouvernement et les marchés — que dans les manifestations de la vie sociale. Il y a un trait qui se dégage avec assez de clarté des autres faits; c'est que la ville musulmane du Moyen-Age n'est jamais une unité d'administration avec des organes à elle propres. Il y a des citadins, mais non pas des citoyens. Dans plusieurs instances, il est vrai, des villes indépendantes ont été gouvernées par une personne ou même une dynastie, qui s'y était fortifiée, mais dans ces cas il s'agissait plutôt d'une organisation politique et militaire à l'instar des autres formations politiques.

Il reste à dire quelques mots sur les groupements politiques qu'on désigne souvent sous le nom d'états musulmans. Je crois que le mot „état” doit être employé ici avec beaucoup de réserve et que le mot „empire” exprimerait mieux ce que sont réellement ces groupements politiques, quelque réduite qu'ait été souvent l'extension de leur territoire. La seule unité politique et territoriale qui soit reconnue dans l'Islam est la *Dār al-Islām*. Cette unité a été réalisée seulement au premier siècle, mais l'idéologie de cette unité n'en est pas moins restée assez puissante pour exercer une influence sensible sur le développement politique. Ce développement a connu, on le sait, une série imposante de dynasties (*dawla*) qui quelquefois ont pu exercer leur autorité sur des territoires très étendus, avec une population nombreuse et cela pendant de longues périodes de l'histoire. Mais du point de vue sociologique la dynastie a rarement des rapports organisés avec les classes existantes dans la société qui est gouvernée par elle, excepté la classe dirigeante. Même le territoire sur lequel s'étend la domination de la dynastie reste assez flottant. Ainsi les auteurs géographes de l'Islam, tout en parlant des dynasties régnantes, ne connaissent presque pas des frontières politiques; ce sont les frontières purement géographiques qui les intéressent le plus. C'est que, dans l'Islam, le sentiment d'unités supra-individuelles est peu connu. L'organisation

de l'administration dans les domaines des dynasties ne fait pas usage de corps administratifs ou de commissions composées de plusieurs personnes, mais seulement d'individus auxquels un certain pouvoir a été délégué par leurs chefs et qui empruntent en fin de compte leur pouvoir administratif ou militaire à celui du membre régnant de la dynastie. Les fameux *dīwāns* sont seulement des bureaux, où le chef porte la responsabilité. Cette modalité de formations politiques, qu'on observe aussi dans le gouvernement des villes, doit certainement être prise également en considération lorsqu'on veut se former un jugement sur le caractère individualiste ou collectiviste de la société de l'Islam.

Les points de vue que j'ai relevés jusqu'ici me paraissent être les plus importants. L'article de l'Encyclopédie sur la Sociologie devra sans doute aussi accorder quelque attention à ce qu'on appelle la sociologie de la civilisation et parler de la vie économique, du droit, de l'art, de la morale, de la mode. Mais comme ces sujets trouveront leur propre place dans des articles spéciaux de l'Encyclopédie de l'Islam, il suffira d'y renvoyer avec quelques observations générales.

Il sera encore nécessaire de mettre en relief la façon dont la structure sociale de l'Islam médiéval s'est formée sous l'influence des facteurs historiques de nature religieuse et matérielle qui existaient avant la naissance de l'Islam. J'ai déjà indiqué comment certaines institutions peuvent être expliquées en les reliant au passé, mais il sera sans doute utile de donner un aperçu global des forces qui ont été actives en Arabie et ailleurs au cours du premier siècle de l'Hégire. Ce sujet appartient plutôt à la sociologie dynamique et son étude pourra mettre à jour des rapports intéressants.

Il y a aussi naturellement les phénomènes sociologiques qui se sont produits dans les pays modernes de l'Islam à la suite de leur rencontre avec les institutions de la société occidentale depuis le commencement du 19^{ème} siècle. Ces phénomènes ont été l'objet d'une abondante littérature et on peut même dire que cette rencontre de civilisations a fait comprendre beaucoup mieux certains traits caractéristiques de la société musulmane. L'article sur la Sociologie ne doit donc pas passer sous silence les faits qui s'y rapportent et donner surtout une bonne bibliographie.

L'ÉTAT MUSULMAN *)

Les institutions humaines, de même que toutes les activités sociales et individuelles dans le monde musulman sont portées par une attitude d'esprit qui pourrait être caractérisée le mieux par le mot *totalitaire* si l'on fait abstraction du moins des connotations politiques que cette expression a acquises dans les derniers temps. Nous voulons dire par cela que tout ce que produit l'humain individuel ou la société à laquelle il appartient dans les domaines de l'art, de la science, de l'organisation sociale et politique est subordonné dans l'esprit à une totalité qui embrasse le tout, sans qu'il y ait des conceptions générales collectives intermédiaires auxquelles ces institutions humaines se trouvent liées directement et complètement et qui constituent des unités collectives en elles-mêmes. C'est une des raisons pour lesquelles la distinction que fait la sociologie entre collectivité et individualité est difficile à appliquer aux phénomènes culturels et sociaux de l'Islam.

Cet état de choses est bien connu pour différents aspects de la civilisation islamique. Ainsi la législation islamique telle qu'elle est conçue par la tradition des docteurs de la loi dérive exclusivement de Dieu et non pas des organisations politiques qui se sont formées et ont disparu ensuite au cours de l'histoire de l'Islam. Les dirigeants séculiers se sont depuis longtemps contentés de ce développement, qui a son origine dans la théocratie existant au temps du Prophète. Celui-ci mort, il n'y avait plus d'organe transmettant la législation, et plutôt que de conférer cette fonction à une instance humaine, on s'est contenté de rechercher la volonté du législateur divin par l'étude des indications fournies par la tradition sur le Prophète et d'autres méthodes plus ou moins rationnelles.

Egalement dans le domaine de l'art musulman, on observe la tendance de subordonner les produits artistiques de la main humaine à la conception totalitaire de la création. Dans l'architecture, on peut dire à peine que les mosquées sont conçues comme des oeuvres perfectionnées qui ont chacune leur individualité à elle-propre. Par leur origine les mosquées ne sont que des espaces vides qui ont été séparés de leur entourage par des moyens très simples. Il est vrai que ces moyens de délimitation sont devenus au cours du temps souvent des

*) Article préparé en déc. 1951.

constructions imposantes et variées, mais celles-ci atteignent rarement une unité qui, à nos yeux, se suffit à elle-même, encore que des traditions anciennes de l'art byzantin ou de l'art persan aient collaboré souvent à rendre le résultat un peu monumental. Dans la plupart des villes musulmanes les mosquées se dérobent entièrement à la vue par les maisons qui les entourent de tous les côtés; ce sont seulement les détails de l'architecture, comme un minaret ou une coupole qui en indique la position. En outre, ces mosquées ont été souvent soumises à des restaurations plus ou moins étendues, qui ne tiennent aucune compte de l'aspect de l'ensemble, quoiqu'en détail les additions puissent être fort belles. Les auteurs arabes eux-mêmes, en décrivant des œuvres d'architecture, s'appliquent plutôt à louer les décorations et autres détails, qu'à relever la monumentalité des constructions où celles-ci se trouvent. Dans leur opinion les grands édifices et monuments ont au ressort des peuples qui les ont construits dans les siècles pré-islamiques; ce qui en reste est une preuve éloquente de la vanité de ces anciennes générations. Si les musulmans n'ont jamais rien construit qui soit égal à ces anciens monuments, c'est plutôt une preuve de leur modestie et de leur piété. C'est dans l'art décoratif au contraire que la production artistique a connu ses plus hauts triomphes. De même que les décorations des arabesques sont seulement là pour rehausser la beauté d'une construction plus grande, cette construction même à son tour n'est qu'une décoration, c.à.d. un détail de la création de Dieu.

On pourrait faire des observations analogues sur l'art littéraire arabe, où manque l'épopée, et sur l'activité scientifique, où l'on avance rarement des théories d'ordre général basées sur le raisonnement, en se contentant dans la plupart des cas de la présentation d'observations qui rendent la science arabe si précieuse pour nous. Et là où, comme en philosophie, les savants, en continuant l'effort mental des Grecs, ont présenté ou perfectionné des systèmes cosmologiques, ils ne se sont jamais débarrassés de l'antipathie suspicieuse des théologiens et de la communauté islamique en général.

Il n'en est pas autrement dans le terrain de la politique, malgré des apparences qui semblent prouver le contraire. L'unité politique de la communauté islamique sous un seul chef, le calife, est la seule unité que connaît la théorie des légistes. On sait que cette unité a été une réalité dans l'histoire et que la désintégration politique a commencé déjà assez vite après l'avènement des califes abbasides. On peut même dire que ceux-ci ont été les premiers à donner, sans le vouloir,

l'exemple du renversement du pouvoir établi par leur propre saisie du pouvoir. Il est vrai qu'ils avaient en vue l'obtention du pouvoir suprême et indivisé — ce qu'ils ont atteint à peu près. Mais leur action n'en était pas moins un „renversement” ou même une „révolution”, ce qui est précisément le sens original du mot arabe *dawla*, qui est devenu ensuite la désignation de toutes les dynasties de l'Islam. *Dawla* signifie depuis la révolte des Abbasides un nouvel ordre politique et c'est justement ce caractère de nouveauté qui a fait tradition dans les siècles suivants. Avant les Abbasides, la lutte pour le pouvoir avait été menée ouvertement et directement dans une communauté qui ne pouvait s'imaginer qu'un seul commandement suprême. L'activité propagandiste des Abbasides avait poursuivi ce même but, mais il y avait des différences essentielles. D'abord elle s'était basée sur un élément social nouveau, les clients ou *mawālī*, qui se recrutaient parmi la population non-arabe soumise à l'Islam; dans ceci elle avait été déjà précédée par les mouvements chi'ites bien connus du temps des Omayyades. En deuxième lieu, elle avait eu ses adhérents dans des régions géographiquement limitées du vaste empire, ce qui a laissé une empreinte définitivement iranienne sur le régime des califes de Bagdad. Et on pourrait ajouter en troisième lieu que l'effort des Abbasides n'a jamais atteint son but intégral puisque, presque au même moment, une autre dynastie, celle des Omayyades d'Espagne, réussit à s'établir à Cordoue, imitant en cela l'exemple des Abbasides, mais justement compromettant, par ce fait même, l'unité idéale de l'empire de l'Islam.

Nous n'avons pas besoin de suivre en détail la désintégration de l'empire des Abbasides qui commença assez vite après leur avènement par la formation d'un nombre d'unités politiques plus ou moins étendues et plus ou moins indépendantes, mais toujours sous la direction d'un chef supporté par une groupe d'adhérents caractérisés par des attaches locales ou ethniques. Ces chefs fondèrent presque toujours des dynasties ayant eu une durée plus ou moins longue d'existence, et ces dynasties devinrent toujours des copies assez fidèles de la dynastie des Abbasides quant à leur façon de gouverner.

Ainsi fut introduite dans le monde de l'Islam l'institution des *dawlas*.

Or, le démembrement d'un grand empire est un phénomène qui se rencontre dans l'histoire de l'humanité sur toutes les parties du globe et n'a en soi-même rien qui soit particulièrement islamique. La formation de dynasties est un spectacle social et politique d'occuren-

ce trop connue depuis le commencement de l'histoire humaine. Mais, pour nous, il s'agit plus spécialement de l'interprétation qu'a donné à ce phénomène la pensée politique de l'Islam. On sait que cette pensée n'a jamais abandonné la conception du califat universel, et une pluralité de dynasties, qui n'existait pas encore à l'époque des Omayyades, est certainement une nouveauté (*bid'a*) qui a surgi inopinément, bien longtemps avant que la théorie légiste ait commencé à s'en occuper. C'est seulement après que le califat de Bagdad s'était vu placé lui-même sous la domination politique d'une dynastie iranienne, les Bouyides, que le théoricien al-Māwardī a avancé la doctrine que ces princes étaient d'une certaine façon les délégués de pouvoir des caliphes. Plus tard il s'y est ajouté l'opinion des jurisconsultes que, dans certaines circonstances, les musulmans doivent l'obéissance à quelqu'un qui exerce de fait un pouvoir politique (*dhū'l-shawka*), mais cette dernière théorie ne doit pas nous occuper pour le moment. L'Islam a donc dû assimiler la coexistence d'un nombre de plus en plus croissant de dynasties sur son territoire, à tel point que l'histoire politique de l'Islam est justement caractérisée par une longue série de dynasties en Occident et en Orient.

A cette conception des dynasties, il s'est ajouté, dès le commencement, un trait qui a certainement son origine dans l'ambiance arabe où l'Islam est né. C'est qu'elles sont toujours conçues sous un aspect de tribu avec un ancêtre commun, de même que les tribus arabes se dériveraient généalogiquement d'un ancêtre éponyme, d'après lequel les membres de la tribu se désignaient eux-mêmes comme les "fils" (*banū*) d'un tel. Dans beaucoup de cas, comme dans celui des Abbasides eux-mêmes, cette désignation a certainement une justification historique, mais dans d'autres cas, comme, par exemple, celui des Zaidites, cette construction est certainement forcée et bien que les Mamlouks d'Égypte soient souvent considérés comme une *dawla*, les liens avec la réalité manquent ici complètement. On sait que l'historien Ibn Khaldūn a fondé sa théorie sur l'élévation et la décadence des dynasties sur cette conception de tribu, mais, malgré un grand nombre d'observations très justes, il est clair qu'il n'a pas vu le phénomène des dynasties dans sa portée historique entière.

Les princes appartenant aux dynasties formées à l'instar de celle des Abbasides se donnaient au commencement le simple titre d'*amīr*; le calife lui-même, du reste, était aussi un *amīr al-mu'minīn*. Mais, on le sait, au cours de l'histoire, les titres princiers se sont beaucoup multipliés. Le titre de *khalīfa*, en imitation des Abbasides, apparut

même assez vite dans la dynastie des Omayyades d'Espagne et celle des Fatimides d'Egypte; à ses côtés on rencontre ceux d'*imām*, de *sultān* et, dans des temps plus récents, les titres de *malik* ou *shāh*.

Un des traits qui étaient propres à la dynastie des Abbasides, en vertu de sa prétention de continuer la souveraineté sur l'empire entier des musulmans était son caractère d'empire, englobant une variété de peuples et de tribus qui étaient seulement unis par la religion et, dans le cas des non-musulmans, par la conquête. Ce trait est resté caractéristique pour toutes les formations politiques qui ont imité la dynastie des Abbasides. Il n'est jamais question d'un groupement national, comme on pourrait le constater encore dans le régime arabe des Omayyades. La délimitation du territoire sur lequel règne une dynastie musulmane n'est jamais déterminée par autre chose que les possibilités offertes par la géographie et par la défense militaire, et si quelquefois les habitants de ce territoire semblent former plus ou moins une nation, comme cela se voit quelquefois en Egypte, cela a été un phénomène entièrement accidentel. Les dynasties n'étaient issues que très rarement du peuple même qui était soumis à leur domination. Ce caractère „impérial” et non-national de la dynastie musulmane a été peut-être encore accentué du moment où les Turcs ont commencé à former des dynasties en territoire musulman. Il est vrai que les Turcs ont apporté des notions et des traditions propres à eux dans leur mode de gouvernement, mais ils ont assez vite assimilé les conditions dynastiques qu'ils trouvaient dans les pays musulmans où ils allaient être les maîtres. Seulement les Turcs se sont montrés de meilleurs architectes de grands empires durables que les dynasties qui les avaient précédés. On n'a qu'à penser aux empires des Seldjoukides, des Grands-Mogols et surtout celui des Ottomans. Ces grands empires ont même pu tolérer quelquefois sous leur domination des dynasties secondaires, sans que le pouvoir central fût sérieusement menacé. Dans le cas de l'Empire Ottoman on peut même observer que la dynastie régnante a donné son nom à l'empire fondé par lui, ainsi qu'à ses sujets. Un tel développement sémantique est vraiment très rare dans le monde islamique, mais peut-être est-il dû à l'influence des idées politiques de l'Europe, où les liens entre l'état et son territoire étaient conçus assez tôt d'une autre façon. En tout cas, cet exemple a été suivi de nos jours par l'état d'Ibn Saoud en Arabie, et l'avenir doit montrer si cette appellation dynastique se maintiendra dans la géographie politique. Mais le nom des Ottomans est retombé dans l'histoire.

Nous pouvons donc constater que le système dynastique, tel qu'il s'était établi depuis des siècles dans le monde de l'Islam n'a jamais entièrement pu aboutir à la création d'états nationaux dans le sens occidental du mot, où le pouvoir du gouvernement est supporté en quelque sorte par un sentiment de loyauté nationale. Les dynasties ont formé des dominations, si l'on veut des empires, mais on ne pourra appliquer aux unités politiques formées par eux le nom d'„état" dans le sens occidental du mot qu'avec beaucoup de réserves. Le seul mot qui dans le monde islamique moderne a été mis en contribution dans une tentative de trouver une désignation adéquate pour la conception occidentale de l'état est justement le mot *dawla* „dynastie". Cette transition sémantique a commencé dans l'Empire Ottoman au commencement du 19^{ème} siècle par rapport à la forme turque *dewlet*, transition qui a été imitée ensuite dans les territoires de langue arabe.

Il y a certainement des cas où les apparences semblent contredire la manière de voir énoncée ci-dessus, comme surtout celle de l'Iran, où la domination fondée par la dynastie des Safawides est souvent qualifiée d'état national, et la même chose pourrait être dite de l'Egypte du 19^{ème} siècle. Mais, sans nier la possibilité que, sous l'influence d'une dynastie durable dans ces pays, les conditions pour le développement d'une unité nationale aient été plus favorables, il paraît être plus exact d'attribuer ce développement aux conditions géographiques dans lesquelles se trouvent ces pays et peut-être aussi à l'influence exercée par le système politique de l'Europe.

Le nationalisme dans les états islamiques modernes ne paraît nulle part être lié à une dynastie. Si l'on suit la naissance et le développement des sentiments nationalistes dans les pays actuels de l'Islam, surtout dans tous les pays qui ont composé autrefois l'Empire Ottoman et notamment en Turquie même, on constate au contraire que ce développement a justement trouvé son inspiration dans l'opposition contre la dynastie régnante et qu'il n'a eu nulle part besoin du support d'une nouvelle dynastie pour l'aider à atteindre ses buts.

Considérées dans son ensemble historique, on pourrait dire que les nombreuses dynasties musulmanes contre l'arrière-plan de l'unité politique idéale de la communauté islamique n'en constituent que la décoration, de la même façon que les produits de la main d'oeuvre artistique dans l'Islam ne sont autre chose que la décoration de l'oeuvre parfaite du créateur divin.

Si toutes les apparences ne sont pas trompeuses, le temps des dynasties musulmanes est passé. Par leur organisation constitutionnelle

beaucoup des unités politiques dans l'Islam sont devenues maintenant des „états" dans le sens occidental. Pour autant que ces états sont issus d'un ancien système colonial, comme le Pakistan et l'Indonésie, ou d'un ancien système impérial, comme les états du Moyen Orient, ils n'ont plus de dynasties — à l'exception de l'Irak — et ils sont maintenant en train de chercher à atteindre, quelquefois en passant par des difficultés extrêmement troublantes, un équilibre social et politique. Les autres états, gouvernés par des dynasties plus anciennes, ne traversent pas moins une période tumultueuse de transition, dans laquelle la dynastie tantôt tâche de se maintenir comme force indépendante dans l'état, tantôt se montre solidaire avec les nouvelles aspirations nationales. Les anciennes conditions prévalent encore dans des pays „moins développés", mais il n'est pas risqué de prédire que, dans un avenir prochain, il en sera fini des dynasties qui semblent s'identifier avec l'état.

De quelle manière le monde de l'Islam s'adaptera-t-il à ce nouvel état de choses? Est-ce qu'il montrera la même capacité assimilante que du temps où les premières dynasties musulmanes ont apparu sur la scène de l'histoire? Ce n'est pas certain du tout. Les idées politiques de l'Islam ne se sont jamais adaptées, à quelques exceptions près, au système colonial au temps de la plus grande étendue de celui-ci. Ces idées se sont plutôt tournées de nouveau du côté de la grande unité idéale, quelquefois envisagée dans le califat ottoman et quelquefois dans un régime dont on voyait la réalisation dans l'avenir. Seulement, pendant l'époque coloniale, l'organisation sociale ne s'était pas encore beaucoup écartée des conditions qui existaient aux temps des anciennes dynasties, c.à.d. que l'exponent des idées politiques étaient en général les classes influentes des jurisconsultes, interprètes de la Loi Divine.

Dans nos temps modernes, comme le montre le développement des sentiments nationalistes, la parole n'est plus exclusivement aux docteurs de la loi. L'organisation sociale a beaucoup évolué et c'est un bien plus grand contingent des peuples musulmans qui sent la responsabilité pour l'évolution politique que devront suivre leurs pays.

Est-ce que, dans ces conditions, les peuples musulmans continueront à considérer leurs formations politiques comme des phénomènes éphémères, comme des décorations en bordure de la grande unité que connaît la *shari'a*? C'est dans ce dernier sens que pointaient certainement les tentations en rétablissement du califat que nous avons

témoignées après la première guerre mondiale. Mais on sait que ces tentations n'ont mené à rien, et après la deuxième guerre mondiale on n'en a plus entendu parler. Ce qu'on voit au contraire est un effort plus réaliste à arriver à une entente entre les états musulmans pour défendre un patrimoine religieux et spirituel, comme c'est surtout le cas de la Ligue Arabe. Il est vrai que c'est le désir d'accomplir une unité supranationale, qui est peut-être plus facile à réaliser que, par exemple, en Europe, parce que l'unité nationale ne s'est pas encore si solidement enracinée dans la pensée des peuples islamiques. Mais ce n'est pas un bond soudain vers la réalisation du grand Dār al-Islām, tel que le connaît la théorie légiste.

Il y a certainement lieu d'espérer que cette conception plus réaliste de l'état musulman finira par être acceptée dans le cadre de la pensée politique de l'Islam, de la même façon que jadis l'existence d'une pluralité de dynasties y a été introduite. La conséquence en sera que le nationalisme, qui a surgi en premier lieu comme réaction contre les anciennes dynasties, pourra être conduit dans une voie plus positive, dans ce sens qu'il permettra l'évolution des sociétés islamiques selon leurs dispositions naturelles. Une fois que ces principes se seront répandus plus largement parmi les peuples musulmans et que ceux-ci auront compris mieux la responsabilité pour leurs propres institutions, sans avoir besoin de suivre la politique personnelle des dynasties, leurs relations avec les peuples non-musulmans également pourront être envisagées sous un autre aspect et mener à une coopération plus harmonieuse que dans les temps où les intérêts des dynasties et les doctrines des légistes étaient la source de continuels malentendus.

Et peut-être qu'il se lèvera un jour un autre al-Māwardī qui interprètera les nouvelles conditions avec des formules nouvelles dans le cadre des principes constitutionnels de l'Islam.

THE REACTION TO WESTERN INSTITUTIONS IN MOHAMMEDAN COUNTRIES *)

Since the rise of Japan the catchword "Asia awakes" has become a commonplace. Its use is now extended to all Asian peoples, generally implying that these peoples had vegetated in a kind of sleepy inertia until the ubiquitous penetration of Western culture and its institutions stirred them awake. Hence, these peoples became conscious that they too could gain a similar cultural position, and above all the position of power connected with it.

Recently I read a critical comment on this view. According to this criticism the judgement "Asia awakes" is too exclusively determined by our seeing through Western glasses. Hence we impute to the Asian peoples motives and ideals which we, as Westerners, would entertain in similar circumstances. Yet, it is by no means certain that the Oriental mentality will react in the same manner. The sleepy complacency of former days—as we call it—can from an Oriental point of view be regarded as a balance of forces harmoniously cooperating towards the fulfilment of a completely different ideal in which world dominion has no principal place. It is, however, quite certain that the contacts with Western culture effected a tremendous shock, occasioning a fresh reflection and a spiritual reorientation in the East too. It is also clear that the first reaction could not but result in the desire to imitate the West and its institutions, including aspirations for a position of power. This is a primary and more negative reaction which could occasion the judgement "Asia awakes". The true awakening, however, should be reflection, i.e. comparison between native values and those of Western culture, or better still, interpretation of the new values as seen in the light of the old world-conception.

Is it necessary to consider this matter in such a philosophical fashion? Cannot we assume that Western institutions will eventually be appropriated altogether by Oriental peoples, in consequence of which the Oriental mentality will change too and these peoples will ultimately be undistinguishable from the West?

It is possible that such a development will occur and the facts do not provide a clear refutation of this opinion. Everywhere, as a result of

*) Translation of a lecture, held in Dutch before a student group, Dec. 1951.

the confrontation with the West, a great social and political upheaval is taking place; it is, however, an open question whether this upheaval will lead to complete assimilation or one day to harmonious reinterpretation. The former development would imply that there is only one pattern of human civilization, i.e. the Western; the latter would lead to the conclusion that the Western form of civilization is but relative. History seems to point to the latter. At all times civilizations have risen and disappeared, which again and again borrowed important values from preceding civilizations, yet not without reinterpreting these values. We can even notice that the pattern of culture prevalent in North America is not quite the same any longer as that in old Europe. Our judgement is, however, hampered by the fact that Europe too has been Americanized, albeit in a superficial degree. Huizinga also noted this phenomenon.

Similar complex phenomena occur with the Westernization of Oriental countries. On the basis of the above considerations, it seems to me worth while to examine what the spiritual background of this reaction to the West is.

This examination will be limited to that part of the Oriental world which is commonly called the "World of Islam", mainly because I am somewhat better acquainted with the facts pertaining to it. Furthermore, we enjoy the advantage that the very extensive Mohammedan religious literature presents quite a clear picture of the spiritual background of Islam. It is, however, not my intention to view Islam as a religion only, but rather as a certain attitude towards life which is inherent in Mohammedan culture and finds its religious interpretation in literature. The many non-Mohammedan elements living in Mohammedan countries have generally adopted this attitude towards life too. A more or less similar attitude towards life can probably be found in other Oriental countries as well, although their religion is not Islam. I am, however, not competent to deal with those countries. Most probably the differences are as great as the similarities.

In the first place I wish to point out that Islam has grown up on the same spiritual foundations as Christianity and Judaism. Mohammed's preaching must have been inspired by his observation of monotheistic piety as practised by the Jews and Christians in his surroundings. The Hellenistic type of classical culture also exerted considerable influence. In view of these historical facts an Egyptian philosopher (Ṭāhā Ḥusain) argued that Western and Oriental culture share a common foundation, and consequently have much in common.

Hence Western and Islamic culture are fundamentally different from other Oriental types of culture.

Not wishing to refute this thesis immediately, we must, nevertheless, point out that Islam has undergone a development completely different from that of Christianity, which even at an early date was strongly influenced by Hellenism, and whose subsequent cultural development shows the perpetuation of these Hellenistic values in an adapted form. Islam has remained much more in the Oriental sphere, retaining some of its peculiarities in a typical form, precisely on account of its appearance as a special type of religion.

Taking a closer view at the Western institutions which have influenced the East, we can first concern ourselves with those features which affect life rather superficially, but do not necessarily cause a great disturbance, although they may clash with age-old traditional convictions. I am thinking for instance of the introduction of Western dress and Western foods and table-manners. Usually, the majority of the population retain their old customs, often because of religious motives. In Mohammedan countries people have, therefore, always been prejudiced against peaked headgear (among other things in connection with the *Ṣalat*) and against more or less stiff collars and ties. There is a similar prejudice against certain foods, e.g. pork—which is, moreover, prohibited by Mohammedan law—and against the enjoyment of wine, which is also proscribed. On the other hand, there always is a small group of people who think for some reason or other that they distinguish themselves by imitating Western customs. By such action they put themselves outside the old society. In the first instance these reactions are not very important. However, if imitation of Western customs becomes characteristic of a social group which had a special position for other reasons as well, these superficial changes may gain a much deeper social significance and unobtrusively cause a much more radical disruption of society.

This is also valid for the introduction of scientific technical inventions which directly affect daily life, e.g. means of transport, telephone, cinema and other similar technical innovations. To Oriental people these innovations are not inventions originating from their own surroundings, but gifts of civilization dropping in their laps. Most of them readily accept these gifts without appreciating how much labour has been performed in another part of the world during many generations in order to achieve all these things. Occasionally, conservative and orthodox groups raised objections. Thirty years ago this happened

in Sa'ūdī Arabia, when the jurisconsults had to be called in a special conference in order to determine whether wireless telegraphy was or was not witchcraft. If it had been found to be a product of witchcraft, it ought to have been prohibited in accordance with the Law; this did not happen, since this invention was acquitted of the charge of witchcraft.

The introduction of Western medical treatment raised and still raises greater difficulties. Of course, it often meets with mistrust and may be very shocking to popular notions of supernatural forces or spirits which influence man's physical condition.

Other influences are even farther reaching, because they drastically affect, either directly or indirectly, the social and hence the political order.

Here a distinction can be made between economic, social and political institutions.

In the economic field we find e.g. the introduction of new agrarian methods, modern industrial techniques and new techniques for the exploitation of raw materials, especially oil.

In the social field we are concerned with military organization, the introduction of Western juridical institutions, government-controlled education and Western notions of family life, which break down traditional bounds.

In consequence completely new social conditions came into being which were utterly unknown in the former Oriental society. The first cause of change is found in the enormous population increase. Western society has also seen population increases, but these followed a more gradual course. This population increase is mainly the result of better regulated conditions of life, but owes much to improved medical and hygienic care as well. A second result has been the rise of totally new classes, especially the birth of a new professional class of intellectuals, such as barristers, journalists, educators and teachers. In every Oriental country this group forms a new intelligentsia, which no longer has its roots in its own environment and consequently finds it extremely difficult to determine its own mode of life. Naturally, this class exerts considerable influence on the rest of society. This is particularly true of the journalists, although their influence does not seem to be as far-reaching in Oriental society as it is in our Western world. Workers in large industries form another new class. They no longer fit into the old framework of small local industrial guilds; on the contrary, they have to organize themselves in Western ways and have to conquer strong resistances unknown in Western society.

Thirdly the political field: most Mohammedan countries have adopted Western political institutions, which in Europe were born from and tested in protracted struggles against an older absolutism. But in the Orient these institutions suddenly had to survive the abrupt confrontation with older forms of patriarchal despotism which was totally ignorant of political liberties as such. The concept of a national state with carefully defined frontiers was totally new to the East and led to a curious development of nationalist sentiments.

The introduction of these Western social and political institutions involves a reaction which cannot be as easily formulated as could be done in previously mentioned instances. Usually people hardly notice the new things in the beginning. Gradually, however, the new element rouses a general feeling of uneasiness. Traditionally orthodox groups shout their disapproval, which is, however, directed against secondary phenomena of the new order, e.g. corruption of morals or political weakness of the new form of government. The old order is often held responsible for its failure to check all these new things and people are exhorted to return to the oldest social and religious institutions of Islam in order to draw from these strength to build a better Mohammedan society.

These reactions surely give evidence that the great social unrest resulting from the adoption of Western cultural goods is of a spiritual nature and not solely caused by inability to assimilate the new institutions materially. There is indeed an older spiritual and social structure, which is incapable of tolerating the new elements. Most jurists consider this social structure to be embodied in the Mohammedan Law as it has developed through the ages. Many begin to doubt that this Law is correct, even though they cling to the idea that its principles have retained the same validity they had in former ages.

Here I wish to attempt a formulation of the spiritual background of Mohammedan society, which may to some extent explain the difficulties that have been experienced, and also instil an understanding of the enormous effort required to have the new elements accepted in a harmonious way.

I should like to characterize the Mohammedan mentality as totalitarian in this sense that all expressions of human life are considered to be directly, without intermediaries, governed by the highest divine world-guidance. As is well-known, the religious institutions of Islam show this very clearly indeed. Allah's Holy Law, as elaborated by the jurisconsults through continuous study, claims direct control of the life

of every individual human being. Man does receive guidance from the jurists, but they are by no means mediators between man and God. In theology as well Allah's omnipotence is preponderant, ruling all things including the expressions of man's will. The free will exists only apparently. In consequence we find the well-known fatalistic mentality by virtue of which man accepts everything as decided by Allah on the one hand, but also feels less sense of responsibility for his own acts. The whole world with all its manifestations, including man, is but a decoration of Allah's creation, which leaves no room for independent superhuman entities beyond Allah Himself. From this concept also springs a philosophy of nature which does not recognize immutable laws of nature, but which views the regularly recurring phenomena that have been observed as habits only of the Creator, Who can change these habits at any given moment. Good and evil are human notions which are meaningless to Allah.

This is illustrated by certain peculiarities of Mohammedan art. It is well-known that the monumental element is lacking in this art and that beauty is primarily expressed in decorative and ornamental patterns. The great mosques have an ethereal and highly refined decoration consisting of arabesques and geometric figures. The mosques themselves, however, do not constitute an artistic unity. They do have a style of their own, but often they are hardly noticeable. No attempt is made to achieve this greater artistic unity by human hands, for the mosques, the palaces and other buildings form part of and decorate the great creation, which itself is the only perfect edifice.

Similar observations can be made with regard to Mohammedan literature, which did not produce any monumental works of art either. It did produce an abundance of mostly lyrical poems, but nothing comparable to an epos. In prose we do not find any novels, but there is a great wealth of short stories and pieces of subtle prose poetry. Even the *Arabian Nights* shows no monumental qualities and is not held in esteem as a literary product.

The abovementioned mentality has influenced the structure of Mohammedan society to a considerable extent. Social classes are known and so are clans everywhere, but these are not clearly defined and lack stability. In a short time an individual can easily pass from a lower to a higher class and vice versa (one day caliph). This is in complete agreement with the oft repeated saying in the Koran that Allah raises and degrades whomever He wills. Prominent and wealthy persons and families may suddenly be reduced to beggary because

of royal displeasure. In the history of Islam we frequently find this instability which the Mohammedans themselves regard as quite normal (*kismet*). However, when a Western power gained a large influence in a Mohammedan country, either as a colonial power or by other means, the persons most influential at that time retained the positions they had, because the new order introduced a social stability which had never been known before. This sudden interference inevitably raised various tensions which at some time could not but lead to violent explosions.

The new intelligentsia mentioned before naturally constituted a class in need of greater stability. This group as a class experienced and still meets with great difficulties in order to be recognized as such by the rest of society. People were too much used to continual changes of the leading and responsible personalities.

Another typical characteristic of Islam is found in the aversion to governing bodies consisting of a group of persons, such as committees and boards, and to corporate bodies in general. The mentality described before regards corporate bodies as higher, supernatural entities, which place themselves between man and God. Mohammedan tradition does advise people to consult others, but a decision is always in the hands of one person. In principle Islam does not recognize any administration of justice which is carried out by a group, and the whole apparatus of political and social organization proper consists of individuals only, who constitute a more or less fortuitous hierarchy. An individual possessing great power, e.g. the king, enjoys supreme power over his viceroys as long as he retains this power. This is quite compatible with the Mohammedan attitude of mind, for man has after all a will of his own, which will is deduced from God's will. A Mohammedan cannot, however, feel more respect for a corporate body as such than for a single person. The latter is rather the more respected.

For the same reason the company as an economic institution is strange to the Mohammedan world. The introduction of Western education, which is naturally taught by one person in any case, does of course not inevitably meet with opposition. However, Western education, which is organized in a larger or smaller institution and directed by a board, does evoke objections. The Mohammedan world still finds it quite difficult to become used to the idea of organization by itself. I do not know what Mohammedans really think of a Western university. Many universities modelled on the Western university

have been founded in Mohammedan countries, but student behaviour sometimes raises suspicions that the idea of "discipline", which is based after all on organization, is missing in many cases.

As to family life, the family cannot be said to constitute a social unit. The bearer of authority is always one person, usually a man (that is, to outsiders at least). Hence, the priority of men in all spheres of social life is strongly emphasized. This finds a strong expression in Mohammedan Law too. Even in modern society, the behaviour of men may be of an arrogance which strikes us Westerners as strange. Notwithstanding all Western influence, it is understandable that family life will be penetrated last of all. As long as family life does not undergo change, the fundamental mentality of Mohammedan society will not be altered.

Several times political life has been referred to. For reasons mentioned above, organization of the state must be missing in principle. The head of a political unit must be a king belonging to one of many dynasties, who rules through his vizir and through officials under him. Hence there is no question of what we call "the government". The introduction of a constitutional parliament in particular is one of the innovations that are not easily accepted in Mohammedan countries. For a parliament is a superhuman body whose function cannot be appreciated either by the king or by his subjects. In the older view the members of parliament are either faithful subjects of His Majesty or rebels. In 1866 the first parliament was elected in Egypt, and Khedive Ismail requested part of the representatives to move to the other side of the meeting room in order to form an opposition. But these men were frightened to death and declared their inability to comply with this request.

It is wrong to say that this attitude is undemocratic. It is true that people are completely subjected to their ruler, but every one who wishes to do so can find ways and means to contact directly or indirectly the highest authority in order to plead for his interests.

We would not call this "civic liberty", but it could be called "human liberty". Man faces man, but nothing is more natural than the most powerful at a given moment being in command and even disposing of life and death.

In the West civic liberty originated in the cities. The Mohammedan city, however, has never been a social and administrative unit. The city is governed in the name of the king by a governor who applies

the same methods that are used by the dynasty. Around 1400 a well-known Mohammedan writer on these subjects (Ibn Khaldūn) even said that a city cannot remain in existence unless it is maintained by a dynasty. Wrongly, he leaves out of consideration the economic and geographical factors, and his thesis is not borne out by history.

The history of Turkey, Egypt and Persia during the last century shows that the population of Mohammedan countries have held very little consideration for the representative assemblies they elected. Very recent events in Persia and Egypt give clear evidence of this attitude. Parliaments in these countries were forced under pressure of public opinion as expressed in street-demonstrations to take decisions which people with common sense could not possibly have taken. The parliament, individual members and members of government, who resist, trying to govern according to their best knowledge, run the risk of being murdered, as has happened indeed in several cases. The unorganized masses take the political dispensation into their hands without a sense of responsibility. We could call this the supreme expression of democracy, but ochlocracy would be a better name. In the good old days the king intervened in such cases with energetic measures, usually with success. Today, however, as a result of the artificial introduction of Western methods of government, the dynasty is incapable of properly fulfilling its political function. The countries which no longer possess a dynasty, e.g. Syria today, give still clearer proof of the insufficient functioning of modern Western political institutions in Mohammedan countries during periods of crisis.

The political tensions caused by the introduction of Western institutions are naturally accompanied by social tensions which were previously mentioned.

Western influence in independent Mohammedan countries may be almost a hundred years old, yet the present time shows how little this influence has been assimilated at the highest political and social level. Turkey alone, having had the earliest start, has enjoyed a somewhat calmer development, yet not without considerable loss of territory and disappearance of its dynasty.

Seen in the light of all this, the question of what modern nationalism in Oriental countries means is quite important. Western nationalism may have set the process in motion; to my mind, however, we have to do here with a totalitarian phenomenon the negative expression of which is a revulsion from interference by Western powers and

Western institutions. Positively it is an expression of the basic, although not consciously apprehended, unity of the great community of believers.

If "the awakening of Asia" or, in a more limited sense, the awakening of the Mohammedan peoples, is to have any significance, it is to be found in reflection upon the peculiar spiritual structure as influenced by the revolutionary phenomena, which gradually have been brought about by contacts with the West. For the time being only a limited number of persons belonging to the intelligentsia, who are aware of their new responsibilities, have made a start with this reflection.

Since the course of world-history cannot be undone or checked, we can but hope that this reflection will gradually be practised more widely and will result in a synthesis of harmoniously cooperating old and new values. This is a task to be performed by the inhabitants themselves of Oriental countries. No one can predict the outcome of this development. Undoubtedly, it will cost much blood and tears.

Let us have confidence that this synthesis will be possible and that the impressive conception of the Mohammedan cosmos and Allah's omnipotent rule will not be lost in the process.

IN THE SHADOW OF ALLAH *)

I. Introduction

1. The Cradle of Islam; 2. The Language of the Koran; 3. The Messenger of Allah; 4. The Way of Allah; 5. The Ordinances of Allah; 6. The "People of the House"; 7. The Syrian Rulers; 8. The New Mode of Life; 9. The "Vessels of Knowledge"; 10. Propaganda.

II. Bagdad and Irak

1. The Caliphate; 2. Bagdad and Sāmarrā; 3. The Lords of the Quill; 4. The Lords of the Scimitar; 5. The new Society; 6. The Produce of the Earth; 7. The Good Things of this Life; 8. The Acquisition of Riches; 9. The Ways and Lands; 10. The Elder Learning; 11. The Law of Allah; Dogma; 11a. Piety; 12. The Shī'a; 13. The Wearers of Wool (Mysticism); 14. Erudition; 15. The Sons of Ḥamdān.

III. Iran

1. The Iranians; 2. Princes and Courts; 3. Turks and Seldjuks; 4. The Dome; 5. Travellers and their Lore; 6. Avicenna and Al-Biruni; 7. The Shī'a; 8. The Madrasas; 9. Ghazālī and Mysticism; 10. Persian Poetry; 11. Ḥarīrī etc.

IV The Land of the Nile and Syria

1. The Nile; 2. The Pyramids; 3. The Mediterranean; 4. Fustāṭ and Cairo; 5. Al-Ma'arri; 6. Ibn al-Haitham; 7. Ibn Djubair; 8. Saladin and the Crusades; 9. The Mameluk State; 10. Mecca.

V. The Maghrib

1. The Berbers; 2. Sīdī Idrīs; 3. Cordova; 4. Ibn Ḥazm; 5. Ifrīkiya; 6. Almora-vids and Almohads; 7. Sicily; 8. Moors and Christians; 9. Land of the Negroes; 10. Ibn Khaldūn;

VI. Central Asia and India

1. Džingis Khan and Hulagu; 2. Rashīd al-Dīn; 3. The Influence of China; 4. Dihli; 5. Timūr; 6. Abbas II and Isfahan; 7. Bihzād; 8. Islam and Hinduism; 9. Akbar; 10. The Afghans.

*) This is a translation of a lengthy fragment in Dutch of a book on the History of the Caliphate. The plan for writing this book was first conceived towards the end of the 2nd world war, and Kramers was working on it in between his manifold other activities during the last years of his life. Only the first Chapter and the first 6 paragraphs of Chapter II have been finished; the full table of contents, however, is printed here, in order that the reader may have an impression of what the entire work was to have been like.

The references in the text to the Koran are according to the verse numbering adopted by Bell for his English translation.

VII. The Land of Rûm

1. Manzikart; 2. Djalâl al-Dîn Rûmî; 3. The Borderland; 4. Turks and Turkish; 5. Mehmed the Conqueror; 6. The Sphere of Byzantium; 7. Bektashis and Janizaries; 8. The Fleet; 9. Sinân; 10. Imperium.

VIII. Evolution

1. The East-Indian Archipelago; 2. Napoleon in Egypt; 3. 'Abd al-Wahhâb; 4. Tanzîmât; 5. Pan-Islamism; 6.; 7. Nationalism; 8.; 9.; 10.

I. INTRODUCTION

1. *The Cradle of Islam.*

Every description of Islam, the religion founded by Mohammed, starts with a survey of conditions in Arabia in the beginning of the 7th century, the scene of Mohammed's life and work. It is not quite as natural to begin a description of the culture of Islam in the same manner, since other peoples and countries contributed at least as much to the growth and flowering of Islamic culture as the Arabs did. In the period during which the Arabs attained the acme of their power, i.e. until the middle of the 8th century, one could not yet speak of an actual Mohammedan culture. The first impetus, however, came from Arabia, with the result that for many centuries the Arabic language remained the undisputed vehicle of thought among those who transmitted Mohammedan culture. Hence, people who are still speaking of Arab history and Arab culture are not entirely wrong. When hearing these terms, our thoughts are irresistibly drawn to Arabia, rousing visions of arid deserts and caravans of camels, visions which the believers of Islam in all regions have retained.

In spite of its enormous expanse, and if we except the period of its great conquests in the 7th century, Arabia never was overwhelmingly important in world history, and even to-day it still is one of the lesser-known countries. Its northern boundary are the Syrian and Mesopotamian deserts, in the east, south and west it is surrounded by the sea, with barely a decent port along its coasts. A little eastward and parallel to the Red Sea coast there is a mountainous region which becomes higher and wider in Yaman in the south. These mountain ranges, however, do not allow for big rivers running their quiet course to the sea and providing for river traffic and irrigation. There are wadi-beds only, usually dry, but after heavy rains turning into destructive mountain streams. Thus, the problems of satisfactory irrigation in

Arabia often defy solution. In Yaman, with its terraced fields on the mountain slopes, the best possible use is made of irrigation water available, but big irrigation works such as the famous dike near Ma'rib in North Yaman, already mentioned in the 6th century, i.e. before the rise of Islam, are gone.

The land northeast of the western mountains gradually slopes down to the Persian Gulf, with occasional low ridges and sandhills. The steppes of the Nadjd plateau form the larger part of the northern section. Desert is supreme in the south. Because of these geographical features the country is cut up into several regions with more or less distinctive characteristics; these regions are the ancestral lands to which the wandering Bedouins still feel in some way bound.

Yaman lent itself best to penetration by non-Arab peoples and the products of foreign cultures. In prehistoric times cognate Southern Semites had migrated from here to the African coast of the Red Sea and to Abyssinia. It was in this region also that, centuries before the beginning of our era, the kingdoms of the Minaeans and Sabaeans could originate, civilizations whose heritage, apart from a dim echo in the literature of later ages, consists of city ruins and inscriptions. From here as well as from Zofār, the harbour on the south coast, caravan routes led to the northwest via Yathrib, the Medina of later ages, to Syria. Goods arriving from Africa and even India were carried there. The west of the peninsula therefore was less isolated than the vast Eastern regions where the Bedouins held sway. The southwestern coastlands of the Persian Gulf were at times exposed to penetration from Persia.

Arabia's continental character, however, certainly also explains the directions in which its inhabitants led their conquests. Above all, the desert-filled regions of Syria, Mesopotamia, Iran and North Africa attracted the Arab hosts on their conquering marches. The new cities which they founded were always on the fringe of the deserts, and only political and military need made them settle in the coastal regions of the countries which they had conquered. This also explains why Mohammedan culture, having begun its development in an atmosphere of oases and camel traffic, never lost this imprint.

Especially in the south Arabia's population is a mixture of very different racial origins. This is partly due to traceable historical factors; an explanation for the affinities with African and Near-Eastern races must, however, largely be sought in contacts existing in a distant past, when a more favourable climate and greater fertility of the soil made

Arabia rather less isolated than during the historically known periods. On the shores of the Indian Ocean there still dwell some tribes whose dialect is derived from Southern Arabic. This language has a close affinity with the Semitic languages of Ethiopia. It was also the language of the Sabaeans and Minaeans before the Northern Arabic tongue had superseded the old regional languages.

The contrast between the tribes of Northern and Southern Arabia was closely related to this difference between North and South. During the early centuries of Islam this contrast was still very strong, even though differences in speech were merely of a dialectal nature. Geographically the difference no longer existed, for many Southern Arabs had long since migrated to northern pastures; it had become a traditional difference, fostering however a strong and living sense of dignity among the tribes which had always been so conscious of nobility and descent.

Nomadic society was and still is chiefly characterised by tribal solidarity. Among tribes constantly at war with each other for the possession of suitable pastures and watering places it fostered a sense of honour and nobility. The tribal chieftains, the *sheikhs* (elders) and *emirs* (commanders), backed by their clans, directed the tribe's movements and military expeditions which often were no more than mere plundering raids. A more durable kingdom, founded by a federation of tribes and headed by commanders bearing the title of *malik* (king), seldom emerged. Such a nomadic kingdom was formed in the middle of the 6th century by the tribe of the Kinda in East Central Arabia. Likewise there were the kingdoms of the Lakhmids on the desert border of 'Irāk in the northeast, and of the Ghassānids on the borders of Palestine and Syria in the northwest. These were buffer states culturally influenced by the Sassanid and Byzantine empires; moreover they cannot be considered purely Arab.

The position occupied by an Arab in his tribal society was expressed in his names. Apart from his personal name, he also bore the name of his father and possibly of more remote ancestors, always introduced by the word *ibn* (son). To this again was added the name of a son, preceded by the word *abū* (father), and often also a name indicating his tribe, or another characteristic designation. This Arab way of giving names has been spread everywhere through Islam, because at first it was customary for newly converted Muslims to be taken into an Arab tribe. But in later ages, too, personal names, and often titles, of the Mohammedan world still bore the stamp of ancient Arab custom.

The material culture of the Bedouins was concentrated around tent life and the rearing and maintenance of their camels and livestock. A nobler occupation was the breeding of horses. The possession of thoroughbreds, adorned with high-sounding names and provided with carefully transmitted pedigrees, was indispensable in warfare and in horse-racing, a form of rivalry between the tribes. The use of carriages was unknown; the only wheels in use were the wheels with which to haul drinking water from desert wells, or to irrigate fields and plantations in the oases, which were the scenes of date-palm cultivation and a primitive form of agriculture by an often still half-nomadic population.

The main industries were the forging of weapons and the art of weaving. This was done by people who were held in contempt by the members of this nomadic society, even though their industry was regarded with superstitious fear. The most precious textiles and weapons were imported; the swords valued most highly came from India, and how highly silk from the East was appreciated is evidenced by the fact that the Koran mentions silk garments among the special enjoyments of believers in Paradise.

Even long after Islam had overcome its primitive stage of culture, educated Muslims remained familiar with it through literature. Long caravan trips through Arabia and elsewhere, moreover, kept them in constant touch with circumstances continually reminding them of Mohammed's time, even though a higher standard of living provided them with a greater measure of order and comfort.

The Bedouins regarded oasis- and townspeople as decadent, but even among the latter the tribal tradition and pride in noble desert ancestry was maintained. Their settlements were moreover indispensable to the nomads as market centres where they could exchange their cattle products for wares which could satisfy their demands for more refined goods. Some marketing towns were visited only once a year, but then they were the scene of regular gatherings. Personal and political relations were established, a manifestation of some sort of national life.

Other townships did not owe their existence to desert springs forming oases and palm plantations, but rather to trade. These were the towns along the ancient trade route to the north. Foremost among them was Mecca, situated, as the Koran says, in a valley without field crops. To the Bedouins trade was as contemptible as agriculture and industry, yet the town dwellers' wealth must have roused in them feelings of jealous admiration. In addition these places had of old been cult and pilgrimage centres, and to the Arab tribes which in

religious matters were rather indifferent they had a traditional appeal. In Mecca a visit to the Ka'ba, the sacred house of worship there, was accompanied by certain sacrificial ceremonies, and large crowds used to come and take part in the excitement of ceremonial pageants and parades.

Though trade had brought the inhabitants into contact with culture products unknown elsewhere in Arabia, nevertheless life in a town such as Mecca was decidedly provincial in comparison to what we know of city life in the great kingdoms of those days. Public life was directed by a trade aristocracy. Its most distinguished members counted themselves members of the tribe of the Kuraish, and they also had the supervision of the Ka'ba and the adjacent sacred spring, Zamzam. This oligarchy, however, was largely comparable to a regular town administration. As everywhere else in Arabia, law, including criminal law, was no concern of the authorities. The principles of law found their application in the practise of a rather loosely defined common law, of which later literature has preserved but scanty detail.

Nevertheless this provincialism, so characteristic of Mohammed's earlier environment, accounts for numerous ideas and institutions which, with the spread of Islam, have become the common property of its believers in their conception of law and their attitude towards life.

In the meantime, Arabia itself sank to the level of a piously preserved relic. Barring occasional outbursts of religious and social phenomena, it had but little influence on Islam as a cultural force. The annual pilgrimage did preserve a living contact between all Muslim countries and Arabia. And the great development in means of communication in the 19th century has again rendered this "cradle of Islam" more significant to those who profess Mohammed's creed.

2. The Language of the Koran

Written Arabic, the language in which poets, writers and scholars of the Mohammedan world produced such an astonishing wealth of literature, is a cultural heritage from the Arabs who lived before Mohammed started his preaching. That much is certain, but if we wish to have a more detailed knowledge of this earlier Arab language we are on uncertain ground. The transmission of its poetry and prose is very unreliable, and it is highly likely that later philologists exercised a strongly normalizing control in their editorial work, to say the

least. A striking feature of this old literary languages is its well-nigh perfect unity of form and structure. This leads to the supposition that there existed already before Mohammed's time a common literary language which could be used by poets, storytellers and orators throughout the expanse of the Arabian peninsula. Considering the cultural conditions which must have prevailed in those times, this is not very probable. Older sources too provide sufficient evidence for as great a dialectal diversity as at present.

According to the religiously tinged tradition, this common literary language was based on the dialect of the Kuraish in Mecca. But the only ancient text which has a certain guarantee of authenticity, the Koran, shows dialectal deviations which can, for good reasons, be ascribed precisely to the dialect of the Kuraish. It is true that dialectal differences can be easily obscured by the Arabic consonant script, but the texts show a degree of uniformity which it is hard to ascribe to anything else than to later transmission and philology, leaving aside the question in how far later compilations were based solely on older materials.

But even though Arabic is indebted to Islam for its emergence as a classical language, yet everything points to the fact that to the Arabs their language was a cultural treasure which justified their pride and which they knew better to handle than many another people living under the same isolated conditions. The exceedingly large amount of pre-Islamic poetry the authors of which are mentioned by name cannot but point towards a solid foundation.

Seen from the linguistic angle, too, classical Arabic, in comparison with the other Semitic languages, reveals a distinct character of its own. Such a comparison shows the wide range of possibilities in expression of Arabic, due to a great diversity of word formation and of particles. In classical times at least these features were used to their best advantage in the construction of sentences and arguments in texts of a more abstract nature, going far beyond the requirements of the ancient Bedouins. Linguistic studies have furthermore revealed the fact that the ancient language of the inscriptions of Southern Arabia and its related modern dialects are distinctly different from the structure and vocabulary of Northern Arabic. On the other hand, Northern Arabic as we know it from the poets' language did borrow many words from Southern Arabic. In the same manner it must have been enriched with many elements of the numerous Northern Arabic dialects, thus resulting in a wealth of vocabulary equalled by few other languages.

To this must be added a characteristic of all Bedouin dialects which, in accordance with the speakers' degree of civilization, abound with great detail when designating men, animals, things and actions, but often lack more general and abstract terms. Though in later times scholarly literature had to introduce a suitable abstract terminology, yet literary taste retained its predilection for the use of many homonyms. It cannot be denied that because of this literary texts in Arabic are often lacking in clarity.

Through Islam and later through contact with other cultures Arabic was enriched further with expressions for new ideas, but many new words were also coined in the course of centuries by means of purely Arabic language elements.

This language, then, which also became the language of the Koran, was the pride of the Arabs. For centuries it was practically the only vehicle for the expression of higher thoughts among the Islamic peoples, and as such it was ardently defended also by non-Arabs against those who stood up for the languages of Persians and Turks. In transmitting and disseminating science and art it has completely satisfied the needs within the boundaries imposed by the culture of Islam. And not only this. When languages of other Muslim peoples were admitted into the sphere of Islam, these too incorporated a remarkable stock of Arabic words and expressions in their speech as well as in their writings.

Inscriptions confirm the fact that the Northern Arabs had a script of their own. This was a Northern Semitic consonant-alphabet, which in its oldest form was inadequate for rendering all Arabic sounds. Because of this, and because it lacked vowel signs—at least for the short vowels—, the written phonetic pattern was very incomplete. Hence it was used primarily for recordings of a more business-like nature, especially for the needs of merchants in Mecca and elsewhere. It was almost never used for literary purposes, i.e. for recording poems. Afterwards, a number of letters that were identical in shape were differentiated by means of diacritical marks, and still later the vowel signs were introduced, though these never became an integral part of the script. From the very beginning the letters were never disconnected and writing was done from right to left; the oldest specimens known to us are from Egyptian papyri of the first century of Islam. Later on several different styles of writing developed.

Beside this script for daily use there existed another script of a much more angular type. This script was used, during the first centuries of

Islam, for inscriptions on buildings and on coins, and also for recording the Koran. This is called the Kūfic script. Not until about the year 1000 the former, more cursive, naskhī-script was used also for inscriptions. Both scripts were used in the arabesque ornaments decorating buildings, and under the hands of calligraphers they were turned into the most beautiful decorative patterns of Mohammedan art.

The Arabic script has, with certain modifications, been made serviceable too for Persian and Turkish, and later for a number of other languages.

The great importance of the previously mentioned pre-Mohammedan poetry for subsequent Arabic poetry lies in the fact that its poetic forms, as well as its modes of expression, generally remained the leading pattern for later ages. It is true that not until the 9th century its rules were fixed by the philologists of 'Irāk, and that therefore its lasting authority for the poetry of later ages goes back to an adaptation by these exponents of a new culture. The materials, however, had been handed down from former times, and the idea which they convey to us of this poetic art is certainly in accordance with what we might expect in the ancient Arab environment. The remarkable thing is rather that these old-fashioned forms did not evolve much more in the great culture of Islam. Later on we shall see to what extent the intrinsic nature of that culture may be held responsible for this fact.

As regards form, the poems are nearly always constructed in verses usually retaining one and the same metre; there are a great number of metric possibilities, while rhythm is based on the arrangement of long and short syllables in metrical feet, and not on expiratory accent. Throughout the entire poem the second hemistichs of all verses have the same rhyme; only the first hemistich of the first verse must also have that same rhyme. It is not difficult in Arabic to find new rhyming syllables all the time, but by employing unusual rhyme endings or a polysyllabic refrain the poets were able to display their skill. One of the laws subsequently formulated rules that every verse should express a single thought, but this does not exclude the possibility of a succession of coherent thoughts. The usual type of poem is the *kaṣīda*, which sometimes consists of more than a hundred verses. It is mainly used for eulogies, but convention dictates that the introductory verses contain a lament by the poet about his beloved who is separated from him, and of whom the encampment deserted by her

tribe reminds him; he subsequently describes his further journey, and this again may lead to extensive and detailed accounts of his mount and of the phenomena of nature experienced by a traveller in the desert; then finally the actual theme of the poem emerges. These eulogies furnish an opportunity to proclaim the glory of the tribe and to celebrate those raids which brought in rich booty.

The satires sometimes are devastatingly fierce. Another genre, the elegy, also has the *kašida* form, but it is not bound to the conventional introduction. Other genres, such as genuine love poetry and rhymed life maxims, consist rather of detached fragments which are not considered *kašida*. All this poetry is subjective; it lacks almost totally the descriptive tone belonging to the epic. Poetic effect is mainly achieved by the delicate choice of a meaningful word which should harbour, in the shortest form possible, the thought embedded in each verse.

The effect of successful poems was enormous in this society, and poets were feared as men gifted with supernatural power. Together with the poems the names of many poets — and also of some poetesses — were transmitted in later literature. Many details of their lives have been recorded, and in the main a distinction is made between genuine tribal poets of the desert and court poets belonging to the entourage of Northern Arab border dynasties. Among the desert poets Imru'l-Kais enjoys a romantic fame. He is supposed to have lived during the middle of the 6th century, and he belonged to the royal family of the kingdom of Kinda in Central Arabia, which had fallen into decay. One of his *kašida* together with six other poems, each by a different author, occurs in the famous collection of the seven *Mu'allakāt*, which perhaps means "golden poems", compiled during the 8th century; to the posterity of Islam they constituted a much-admired, though often no longer understood, monument of an idealized past.

The most authentic prose remnants are short maxims and proverbs which later were brought together. Apart from these, later literature includes a great number of addresses by ancient poets and orators, advertized as pre-Islamic, and also many stories of a rather simple composition concerning tribal feuds and legends about ancient kings are in circulation. We may readily accept the existence of this kind of prose, but it is impossible to tell whether any of this material was transmitted in its most ancient form. It shows a remarkable predilection, though, for terse pronouncements in powerful and expressive words, which were much admired also in later ages and of which only the Bedouins were considered capable. Precisely these same

traits are to be found in the earliest prose in which the Traditions concerning the Prophet and the historical details of his life were transmitted.

One prose collection of paramount importance for the entire Mohammedan culture, the Koran, has a unique place too in the framework of ancient Arab literary civilization. As to other genres with which the Koran is linked, we must think especially of the extatic pronouncements by the ancient Arab *kāhins* or soothsayers. These pronouncements are still markedly bound by rhythm and rhyme, similar to the composition especially of the earliest *sūras* of the Koran. The more recent parts of the Koran have retained the form of rhymed prose, and it is precisely this form of composition which in later ages became the most cherished style for many kinds of prose. For the rest, however, the Koran's mode of narration and argument has a flavour completely of its own. This must be a result of the city environment where Mohammed worked and where there was a hitherto unelucidated influence from non-Arab examples of Jewish and Christian origin. Here too the narratives do not reveal an epic calm, they rather have a dramatic power, leading to greater expectations of subsequent developments than actually realized. In spite of all this, the style is not very balanced. In its completed form the Koran's appearance in literature must have created a sensation in Mohammed's time and environment, which also helps to explain the tremendous impression made by Allah's Scripture on the Arabs, sensitive as they were to oratory. But then it was the first writ of revelation sent down by Allah "in clear Arabic speech" (Sūra 26:195), and hence a proof of its genuine nature (Sūra 16:105).

This brings us, however, to the scope of the next paragraph.

3. *Allah's Messenger*

In Arabic there is a word *dīn*, usually rendered by "religion", but actually denoting the manners and customs transmitted of old and governing man's upbringing. But the Arabs knew yet another word *dīn* which happened to be a homonym but was of Persian origin, indicating the doctrine of Zoroaster's followers. In the Koran this same word denotes the message proclaimed through Mohammed, above all in the exhortation that a man is to consecrate his *dīn* in purity to Allah (Sūra 4:145, etc.). With Allah, it is said in Sūra 3:19 and elsewhere, *dīn* means *islām*, i.e. surrender. It is therefore more exact to define this very important concept in Islam by "religious attitude towards life".

Through his preaching Mohammed did indeed change his people's religious attitude towards life, giving it a new foundation. That in so doing he had founded a new "religion" was to become manifest only afterwards.

The religious attitude towards life of the ancient Arabs was characterized by a not very exalted belief in the power of a number of mostly local deities worshipped in the form of trees or stones, and furthermore by notions of desert demons (*djinn*), either benevolent or malevolent. It found its manifestation in pilgrimages and processions to holy places such as the Ka'ba in Mecca, and in sacrificial rites linked with notions of taboo. In ancient poetry there is hardly any evidence of a religious feeling of dependence, except occasionally a knowledge of Allah, the supreme being to whose ordinances man is subject as to a blind fate.

This knowledge of Allah must have a connection with Christian and Jewish notions which were spread especially in the cities and towns of Arabia by their Christian and Jewish inhabitants. Notably in Yaman since the conquests of the Ethiopians in the 7th century Christianity had gained entrance. Jewish congregations had probably been founded at an even earlier date. Both Christians and Jews lived according to the social pattern of the Arab tribes; special mention must be made of the three Jewish tribes in Medina which played such an important role in Mohammed's life. A certain number of pagan Arabs in the time of Mohammed were living by the precepts of monotheistic religion; they were called *ḥimafā*, "seekers after God", and Mohammed must be considered among their number.

According to tradition it was about 614 that Mohammed, then 40 years old, began to admonish his fellow-tribesmen and fellow-citizens of Mecca to change their religious attitude towards life, exhorting them to realize their responsibility towards Allah for their earthly doings. Mohammed belonged to a less influential branch of the Kuraish tribe, the Hāshimid or descendants of Hāshim. As an orphaned child he was committed to the care of his father's family, but by his marriage to Khadidja, a well-to-do widow, he had risen to a better social position. There are practically no truly reliable data concerning his activities in Mecca before he took refuge in Medina in 622. It seems almost certain, however, that his appeal to the loftier feelings of his fellow-citizens found response only with a small group, mostly people of low social standing. For the rest he met with mere indifference, turning even into hatred from the side of the most influential Meccans when they began to feel their social position, and more particularly

their trade interests, threatened by Mohammed's rising influence. For in his preaching Mohammed had also turned against their idolatry and pagan practices, including the pilgrimages, so lucrative to them, to the Meccan sanctuary. In the end the admonisher and his followers met with such great difficulties from the side of the Meccans that he availed himself of an opportunity to go and dwell in other and more promising surroundings.

Gradually the notions visualized in Mohammed's preaching when in Mecca gained in clarity to himself and his hearers. Its component elements were of Christian and Jewish origin. First and foremost was the conviction that after this life there will be a reckoning for the doers of good and the doers of evil. This reckoning shall begin on the Last Day, on the Day of Resurrection. On this Day many miraculous events will fill the people with terror, such as the skies being rent asunder or rolled up, and the mountains being scattered to the winds. This is the Hour called imminent by Mohammed in his preaching; men will rise from their graves and stand lined up before Allah Who shall judge them. And then begins the "After Life", when the risen shall forever dwell either in the "Garden of Delight" or in the "Fire of Djahannam (Gehenna)". But man cannot realize the responsibility for his deeds in this "Near Life", nor act accordingly, unless he believes in the certainty of this last judgment, and this induced Mohammed to postulate "faith in Allah and in the Last Day" as an indispensable condition for the attainment of bliss in the After Life. Those who comply with this condition are the "Believers"; the rest are "Unbelievers".

Faith in Allah means that Allah has the power to resurrect man, just as He created him the first time. It also means that none but Allah has this power, certainly not the idols in whose power Mohammed's contemporaries believed. Those idolators are "they who give partners" because they associate partners with Allah in governing the world, partners who have power over nothing, for "there is no God but Allah". A true believer is he who fears Allah and does not give Him partners. Thus, the absolute and free ruling power of Allah is stressed more heavily than in any other form of monotheistic religion. It extends over nature which is full of "signs" of Allah's power, and above all over man, insofar as belief or unbelief solely depend on Allah's will. "Allah guideth whom He willeth and sendeth astray whom He will-eth" (Sūra 6:39 *et al.*). This certainly does not mean, however, that man is not responsible for his deeds; for is Allah not also the "Com-

passionate One Who accepts the repentant"? From the Koran itself it appears that this part of Mohammed's preaching is felt by the "unbelieving" Meccans to be unreasonable. But they receive the truly prophetic answer that they speak about things of which they know nothing (Sūra 6:149).

Mohammed's conception of absolute omnipotence, as well as the proclamation of Allah's oneness and uniqueness, both remained fundamental traits in the religious attitude towards life of his followers. Man must subject himself blindly to this onnipotent authority, he must practise *Islām*, i.e. Surrender; "Allah hath named you surrendered ones (Muslims)", the believers are told in the Koran (Sūra 22:77). There is no room for a relationship to Allah, conceived in personal terms. Many phenomena in the subsequent cultural development of Islam, such as e.g. its fatalistic trait, find their explanation in this attitude towards the supreme being.

Another characteristic feature is the position with which Mohammed credited himself in relation to Allah and his human surroundings. In analogy of conceptions well-known also in Manichaeism he considered himself one of the Messengers or Prophets whom Allah sends to specific peoples at certain times. This implies his conviction that he was the bearer of a divine revelation sent down to him. Some passages in the Koran allude to visions which had occurred to him, and later tradition adds many details. He thought himself to be the successor of former Messengers, many of whom must have become known to him through Jews and Christians, such as Ibrāhīm (Abraham), Mūsā (Moses) and 'Isā (Jesus). Their histories are narrated in the Koran, more or less in accordance with tradition; wherever possible, great stress is laid on the fact that they were considered liars by their people, which always entailed punishment of that people by Allah. In the same way, Mohammed has been sent as "Allah's Messenger" to the Arabs, and a similar fate will befall this people if it does not repent. Moreover, Mohammed is the last Messenger to be sent before the Day of Resurrection; he is the "Seal of the Prophets" (Sūra 33:40). Thus, he laid the foundation for the conception that the course of world history is a road to salvation, a conception which has become the firm foundation underlying all subsequent Mohammedan world histories.

Former Messengers had brought Scriptures in which the revelation was sent down to them, such as the Tawrāt (Thora) of Mūsā, and the Indjil of 'Isā. Probably at an early date Mohammed was already convinced that similar Scriptures were sent down to him too. He consid-

ered as such the warnings, discourses and narrations of varied length which he addressed to the Meccans, and he called them *Kur'ān*, i.e. "Recitation", because he found that every time he was reciting what had been revealed to him by Allah (cf. Sūra 96:1-3: "Recite, in the name of thy Lord"). He also called them "signs", because they were as much proof of Allah's rule over this world as the signs in nature. The notion of Scriptures was borrowed from Christian culture, but Mohammed added his opinion that his "signs" were destined to be committed to writing; this induced him to call his preaching an "Arabic recitation, free from doubt". Some places in the Koran also contain the notion that Allah taught man the use of the "writing reed" in order to record his words. This is the scriptural authority for the stupendous literary activity so characteristic of Islamic civilization.

These are the main themes of Mohammed's preaching, and they were already there in substance in 622 when he and a number of faithful retainers left Mecca, following an agreement with the inhabitants of Medina who had promised to protect him. Because of the great changes in Mohammed's life after his evasion, his "Admonitions" gained a social and political influence which became decisive for the resulting religious structure of Islam.

Supported by his fellow-exiles and part of the Medinians, called "the Helpers", Mohammed soon gained an influential position as the leader of a community, or rather a congregation, which obeyed the instructions given by him in Allah's name. His contact with the Jewish tribes in Medina, however, was a disappointing experience to him. His doctrine that in former times Allah had sent down Scriptures to other peoples too, especially to Jews and Christians, had given him the expectation that these "Possessors of Scriptures" would join him spontaneously. The Jews, however, as well as the Christians, who were less in number, apparently were not impressed by his message, and therefore they incurred the relentless enmity of Allah's Messenger. Mohammed accused them of "distorting the Scriptures", and came to rely exclusively on his own converts among the heathen. This strengthened even more the national character of his venture. The sanctuary in Mecca, he proclaimed, had been built already by Ibrāhīm together with his son Ismā'īl at the command of Allah, and it was Ibrāhīm who had instituted there the original pilgrimage ceremonies; he, Mohammed, had the task of restoring the "teaching of Ibrāhīm". Soon he felt strong enough for an attempt to implement this programme by using force against the Meccans, with the aim of bringing

their city with the Sacred Mosque under his authority. Thus, the most important events of the Medina period were the war campaigns against Mecca: the famous victory near Badr, situated southwest of Medina, which was the result of an attempt to raid a Meccan trade caravan (624); the defeat at Uḥud at the hands of a Meccan punitive army (625); and the siege of Medina by the Meccans (626-627). The unreliable behaviour of the Jews on the latter occasion prompted Mohammed to expel part of the Jewish tribes from Medina and to exterminate another part. By these actions he succeeded in strengthening his authority over against other unreliable elements in Medina, called the "Hypocrites" in the Koran. In the meantime the Prophet's side had also been reinforced by a number of Meccans, among whom some very influential people. Thus, the balance of power gradually turned in favour of Medina, with the result that, early in 629, Mohammed could hold his triumphal march into Mecca with but little bloodshed; the Meccans accepted Islam without much trouble, also because Mohammed's changed attitude towards the Pilgrimage made this easier for them. The crown on his work was the so-called "Farewell Pilgrimage" to the Ka'ba in 632. This pilgrimage had now been purged of all its heathen elements, and by solemn proclamation it had been announced that henceforth its participants could be none other than believers, i.e. they who had practised Islam.

In the same year, 632, on the 8th of June, the Prophet died in Medina where he had continued to reside even after the conquest of Mecca.

Many events of the Medina period are reflected in the "recitations" held by the Prophet and included in the Koran: long discourses to the Jews and the "Hypocrites", utterances connected with Mohammed's personal experiences, and rules and precepts for his community. The latter have given the Koran the character of a legislative code which in the Mohammedan community had the undisputed authority of "Allah's Word". For the most important change in Mohammed's teaching after he had settled in Medina was his demand for absolute obedience to the precepts given by him in the name of Allah, precepts concerning his followers' concrete way of life, both in their worship of Allah and in their relationship to the community and to each other. The former category consisted partly of injunctions already given in Mecca, such as the ceremonies of the "obligatory prayer", the Ṣalāt. The latter contained rules concerning marriage, inheritance, punishments and the spoils of war, mostly issued haphazardly—sometimes even changed afterwards—as concrete cases arose. In the days of

Mohammed's rule the conception of Allah's boundless omnipotence was supplemented by that of Allah's right to implicit obedience, for what was prescribed by the Messenger was nothing else than the "ordinances of Allah". Time and again the Koran preaches: "Be ye obedient to Allah and His Messenger" (Sūra 3:126, and many other places). Later on we shall see how the fathoming of Allah's will became the principal occupation of the pious.

The rise of Mohammed had thus brought about in Arabia a new and dynamic community whose spiritual and social standards of life were totally different from the standards hitherto known in these regions, even though they may have contained the germs of this later development.

Notwithstanding all this, Mohammed himself had remained an ordinary mortal; he was nothing but a "warner and proclaimer". He had lived as an ordinary human being with his family and his "companions". After Khadidja's death, while still in Mecca he had married a number of wives in excess of the four allowed to any other believer according to the exegesis of a well-known verse of the Koran (Sūra 4:3). Best known among them is 'Ā'isha, the daughter of his trusted adherent Abū Bakr. Being much younger than Mohammed, she outlived him many years, so that she was able to play a role in subsequent quarrels around his succession.

In the system of Islam, however, Mohammed has remained a decisive authority on the law. Apart from this, he has also been given the eschatological role of intercessor on the Last Day. His popular biography has gradually been adorned with various miraculous tales which are recited for edifying purposes. But it is only in the speculations of certain sects that the Meccan Prophet became the earthly reflection of a cosmic power, in the process of which, however, the true Islamic character of his personality was lost.

4. *The Way of Allah*

Not only had Mohammed established a new social order in the cities of the Hidjāz, but in doing so he had also called up forces which, even after his death, were to determine the fate of the Mohammedan community. Once during the early Medina period, the Prophet had allowed his adherents to use force against those who offended them—in Mecca this had been forbidden—and soon afterwards there had appeared the command to fight the unbelievers. To fight or "strive" in the Way of Allah became a duty and a characteristic of the believers

(see e.g. Sūra 4:76). The Arabic word for this "striving" is *djibād*, and it has become the technical term for what is also called the "Holy War". It was after all through fighting that Mecca had finally been subjugated and its inhabitants turned into Muslims.

Already before the conquest of Mecca Mohammed had sent out expeditions raiding caravans and attacking Bedouins, and in 628 he had defeated the Jews and expelled them from the oasis of Khaibar north of Medina. This latter expedition, however, had not created a precedent; rather is it ruled in the Koran that from those Possessors of the Scriptures who surrender only a tribute (*djizya*) may be levied (Sūra 9:29). "Those who give partners" (the polytheists), however, must embrace Islam. As to the spoils of battle, according to ancient custom the head of the tribe was entitled to one fifth part. The Koran expresses this in the following manner: "Know ye that a fifth of your spoils is due to Allah, and to the Messenger and to his relatives, to the orphans, the poor and the followers of the way" (Sūra 8:42). Shortly after the fall of Mecca Mohammed even sent a small expedition to the region east of the river Jordan. This was, as tradition has it, in order to punish the Ghassānid king residing there for having violated a messenger sent to the king of Boṣrā. The expedition was a complete failure, but it was a symptom of the aggressive power then already inherent in the new movement. Shortly afterwards an unsuccessful attempt to capture the city of Ṭā'if led to serious clashes with the Bedouin tribes in the neighbourhood of Mecca. In 630 the Prophet still undertook, though with a reluctant following, a campaign in Northern Arabia, and shortly before his death he seems to have planned a second and larger expedition to those regions. In the meantime, from everywhere in Arabia tribal delegations came to pay homage to him as their leader.

Thus, Mohammed had undoubtedly become a commander whose aim it was to capture not only the hearts of men but also their territories. Not much of this transpires in the Koran, but according to the earliest tradition Allah's Messenger is seen first and foremost as a conqueror; his biography is called the "*Maghāzī*", i.e. the "*Campaigns of Conquest*".

It is not certain whether the Prophet did already dream of world dominion, but the facts do not contradict the tradition which relates that after the fall of Mecca Mohammed addressed himself in writing to the King of the Persians, the Emperor of Byzantium, the ruler of Egypt and the King of Ethiopia, calling on them to embrace Islam.

In any case, after the Prophet's sudden death this part of his programme was carried out with an amazing consistency. Mohammed's leadership was taken over by two men in succession who since Mecca had been very close to him: Abū Bakr, one of his first adherents, and 'Umar, a strong personality who in an impulse had turned from an adversary into a believer. Abū Bakr called himself the "Khalifa", i.e. the "Successor to Allah's Messenger"; hence this term Khalifa, "caliph", became the title of the head of the Mohammedan community and later of the Mohammedan Empire. 'Umar was the first to be called *Amīr al-Mu'minīn*, i.e. "Commander of the Believers". There were other "companions" of the Prophet who had also been his counsellors, but none was as influential as 'Umar; in any case, he and his adherents succeeded in preventing any of the Medinian "helpers" from attaining to the succession.

Being an older friend of Mohammed, Abū Bakr obtained priority, but he ruled two years only, till his death in 634. Under his rule the tribes throughout Arabia were brought to submission and to Islam. This was due in particular to the military capacities of Khālid, the Meccan commander-in-chief who still had fought against Mohammed in the battle of Uhud. The historical sources make mention of the defection of many tribes after Mohammed's death. It is, however, more likely that the Prophet was yet by no means master of the whole of Arabia, as pious tradition wants us to believe. Moreover, Khālid not only had to cope with idolatrous Arabs, but also in some regions with so-called "false prophets". The latter had already appeared during Mohammed's lifetime, and though they too followed his example and called the people to the service of Allah, they had prescribed somewhat different laws. The rich region of Yaman also had such a false prophet, named the "donkey-rider", who moreover came into conflict with the last representative of Persian authority in these parts. Here, too, the expeditionary force sent by Abū Bakr brought victory for Islam.

In Northern Arabia the aggressive attitude of Medina led to conflicts with the powerful state of Byzantium and the Persian Empire. This had not been their deliberate intention, but was a natural consequence of their continuing the programme inaugurated by Mohammed to extend his message and his authority over all the Arabs. The former buffer states of the Ghassānids and Lakhmids had by now become Byzantine and Persian territory, and the former Lakhmid capital, Hīra, was defended—unsuccessfully—by a Persian commander. This event still took place under Abū Bakr in 633, but the next year a well-prepared expe-

dition penetrated into Palestine, and defeated a Byzantine army. In 635 Khālīd conquered Damascus, and in 636, after defeating a huge Byzantine army, the Muslims were in control of Syria. No less rapid was the process of annihilating Persian power in Babylonia. Here, in the famous battle of Qādisiyya near the Euphrates in 635, a well-equipped Persian punitive force was routed after heavy fighting. As a result, the capital of the Sassanid empire, Seleucia-Ctesiphon on the banks of the Tigris, fell into the hands of Sa'd, the Arab commander.

The end of this first stage, the breaking of centralized military power in the two partly Arab border countries of Syria and 'Irāk, was characterized by caliph 'Umar's journey to Syria in 638 and by the founding of the cities of Baṣra and Kūfa on the Babylonian desert border. 'Umar went to Djābiya, south of Damascus, a partly nomadic army camp of Arab troops where in former days the Ghassānid rulers had often resided. Afterwards it had become a centre of the Mohammedan armies, and 'Umar's stay gave it the character of a Diet. Among other things, the foundations were laid here for the dotation system among the troops, which was to function during the subsequent Umayyad period. A special administration (*diwān*) kept the records of military pay. The funds came from the yield of the soil in the conquered regions. Unlike the usual spoils of war, four fifths of which was divided among the conquering troops, these funds were used by the "Commander of the Believers" for the benefit of the entire Mohammedan community. For this practice 'Umar was able to refer back to Mohammed's example when taking possession of the landed property of the Jews in Khaibar: on that occasion the Prophet's action had been borne out by a timely revelation of the Koran (Sūra 59:7). In this way, the Arab warriors could be kept constantly in arms and were prevented from settling as farmers.

During 'Umar's stay in Syria Jerusalem too was conquered. Because of the tales about David and Salomo in the Koran this city was sacred, while moreover an allusion in the Koran to a night journey, said to have been made by the Prophet in a miraculous manner to the "utmost house of worship" (Sūra 17:1), was connected with Jerusalem. The Arabs called Jerusalem Bait al-Maḥdis, "the House of the Sanctuary". The inhabitants concluded a treaty of capitulation with 'Umar, of which the strangest clause was that the Jews were not allowed to live among the Christians. 'Umar visited Jerusalem in person, and he assigned the ancient temple plateau, at that time covered with ruins, to be a place of devotion, i.e. a mosque.

Under caliph 'Umar too the towns of Baṣra and Kūfa were built in the Arab border lands of the former Sassanid empire, after the model of Djābiya and similar army camps and towns. Both these places soon developed into prosperous cities.

In the case of Djābiya, however, this growth did not take place, since nearby Damascus already fulfilled the conditions required. Baṣra, which may have been founded as early as 637, was situated on a spot where in former times the Persians had had a fortification or an armoury. It commanded the entry to Southern Babylonia and Persia from the Arabian coastal regions on the Persian Gulf. Being situated moreover near the mouth of the Tigris, it was at the same time a strategic point from where to control naval and other shipping. Kūfa was situated close to Ḥira, the former Lakhmid residence on the westernmost branch of the Euphrates, and it commanded the road to Ctesiphon, the recently captured capital.

Both these places served as a base for the conquest of the various parts of the Persian empire during the following years, a conquest prompted by the counter-offensive that was being prepared by the Sassanid empire. The crucial battle, bringing total defeat to the Persians, took place at Nihāwand in the vicinity of Hamadhān, the ancient Ecbatana, in Media. From that time onwards the Mohammedan armies penetrated deeper and deeper into a completely disorganized Iran; in 650 the conquest spread to Khurāsān where Yezdegerd III, the last Sassanid king, had taken refuge. He met his death by treason in 651 in the city of Merw which soon afterwards capitulated before the Arabs. The conquering troops were stationed everywhere in and around the cities; only the rise of the city of Shirāz in the southern province of Pars (Persis) is due to the founding of an Arab army camp there.

The years 639-640 also saw the beginning of the invasion of Mesopotamia, the region linking up Syria and Iran in the north.

During this same time, Arab armed forces under the command of 'Amr ibn al-ʿĀṣ penetrated from Syria into Egypt which, as long as it was under Byzantine rule, was bound to remain a military threat to the Syrian regions. In 640 a Byzantine army was defeated near Heliopolis; in 641 the fortress of Babylon in the vicinity of Memphis was occupied, and in 642 Alexandria was evacuated by treaty. The centre of Arab power, however, was not established in Alexandria, but in the newly founded army town of Fuṣṭāṭ near Babylon. This town, like other similar settlements, developed into a large city, but after the 10th

century it was surpassed by the adjacent settlement of Cairo. Fustāt too was situated on the desert border; from the historical sources it appears that 'Umar attached great importance to the new garrison towns being accessible from Medina by direct overland routes, and that he took care that between him and his military bases there would be no large stream such as the Nile or the Euphrates.

Wherever the Mohammedans came they built a central mosque for their religious and other public gatherings. After the model of the mosque at Medina, these mosques consisted of large walled quadrangles, with covered arcades on the sides and a slightly larger covered part on the side which lay in the direction of Mecca; this side also indicated the *qibla*, that is the direction in which the participants in the prescribed communal prayer had to turn their faces. None of these early mosques—according to descriptions they were constructed in a very primitive manner, mostly of wood—have been preserved. Soon however, already during the Umayyad period, they were replaced on the original sites by more imposing structures. Thus, in the old Cairo of to-day, i.e. Fustāt, there still stands the so-called mosque of 'Amr the most ancient parts of which date from the Umayyad period.

In 644 'Umar was murdered by a slave of Persian descent, apparently without any political motive. Before his death he had appointed a court of electors, and this body chose 'Uthmān (Osman) as his successor. 'Uthmān belonged to the influential Umayyad family, i.e. the descendants of Umayya of the Kuraish tribe. During Mohammed's stay in Mecca, Abū Sufyān, the head of the Umayyad family, had been his most powerful adversary, but after the conquest of Mecca he had had to resign himself to the inevitable. 'Uthmān however had been very close to the Prophet, two of whose daughters he had married. Having taken refuge together with Mohammed in Medina, he thus belonged to the old guard, though he was not among the most powerful personalities. It would seem that his election as 'Umar's successor was a reaction against the strongly personal regime of 'Umar. At the same time, however, it meant the disintegration of central power in the Muslim community. The army commanders, who had by now become governors of the occupied territories, obtained a greater measure of independence; this, however, did not at all stop them from continuing their conquests once begun. The weakness of the new regime came to light only gradually, notably because of the difficult problems of administration and of the mutual jealousies among the influential people in and around Medina. Under 'Uthmān several members of

his family were invested with important posts; his nephew Mu'āwīya became governor of Syria where he laid the foundations of his subsequent greatness. Annoyance with this nepotism, as well as discontent with the dotation system introduced by 'Umar, finally gave rise to an opposition movement directed against the caliph, both among the old guard and the conquering troops. This movement was furthermore stimulated by sensibilities of a religious nature. In 656 a band of discontented warriors from Egypt, where shortly before an Umayyad had been appointed governor, came to Medina in order to bring their complaints before the caliph. They were joined by a number of dissatisfied Medinians. 'Uthmān and his adherents handled this case in a rather unfortunate manner, and this led in the end to a general attack on the caliph's residence where he was killed.

A period of party strife ensued, temporarily checking further conquest. It brought to light many tendencies and forces which were to influence the course of development of Islam, without, however, being able to stem the mighty flow of the movement launched by the Prophet.

Some have ascribed the violent wave of conquest, so suddenly pouring forth from Arabia during the 7th century, to economic factors: the Arabs were forced to periodic emigration, with or without violence, because the means of subsistence in their own territory were ultimately inadequate. Be that as it may, the important fact cannot be overlooked that this explosion was occasioned by Mohammed's preaching of Islam. Moreover, the significance of these conquests for the civilization of Islam lay in the fact that the amazing military victories awakened in the "warriors in the Way of Allah" a feeling of superiority over the adherents of other religions. In subsequent centuries this remained a characteristic of the followers of Islam.

5. The Ordinances of Allah

During the Meccan period already, Mohammed's congregation had to observe certain rules of conduct which distinguished them from their surroundings. Being corroborated in a more or less clear fashion in the Koran, they are considered to be the "ordinances of Allah, which may not be opposed". They concern man's conduct towards Allah and towards other men, without however clearly distinguishing between these two categories.

The fact that all believers were bound in common by these rules, the observance of which was supervised by the pious, created a

feeling of solidarity among them, even when they set out on a far expedition of conquest. Hence these rules remained in later ages the principal elements of the "jurisprudence" elaborated by the Mohammedan scholars.

The oldest and most characteristic religious duty is the series of ritual actions—inclinations and prostrations accompanied by a recital of formulae from the Koran—called in Arabic the *ṣalāt* or "ritual prayer". The word *ṣalāt* is derived from the idiom of Syrian Christians where it had the connotation of "prayer". In Islam, however, it is a ceremony which does not allow for personal prayers. Anciently there was no clear distinction between the *ṣalāt* and the *duʿā* or personal prayer, but in the course of time the *ṣalāt* only became subject to rules. Fixed prayer formulae did, however, also come into use; the Koran too contains prayers.

According to the later formulation of jurisprudence there were five *ṣalāts* a day, at fixed times. From the Koran, however, it appears that originally only three *ṣalāts* were observed. This was probably also the case under the first caliphs, the duties of worship having not yet been so narrowly fixed. The *ṣalāt* was preferably observed in community under the guidance of an *imām* or leader. A special communal *ṣalāt* was held on Fridays, with in addition a sermon by the Prophet. It was probably not until the Medinian period that the Friday was chosen, the opposition of the Jews inducing Mohammed to select for this ceremony another day than the Sabbath. In Medina these meetings took place under Mohammed's leadership in the yard of his residence: this was therefore the first mosque. The word mosque derives from Arabic *masdjid*, "place of prostration". After Mohammed's death the caliphs became the *imāms* of the Friday *ṣalāts*, and in the newly founded garrison towns this function was discharged by the commander-governor. There, too, mosques were erected, as described in the previous paragraph. In performing the *ṣalāt*, the believer must turn his face in the direction of the Ka'ba in Mecca; this prescription is apparently due to the fact that opposition of the Jews induced Mohammed to declare the Ka'ba a sanctuary of Islam: before that time the *qibla* or prescribed direction seems to have been Jerusalem.

Beside the *ṣalāt* the Koran mentions the *ṣakāt*. This word indicates the regular payment of contributions for the support of the needy in the Mohammedan community. In Medina the payment was obligatory and more or less regular. The Koran indicated certain categories of persons entitled to benefits (Sūra 9:60). The observance of the *ṣalāt*

and the payment of the *ṣakāt* were the two primary conditions imposed on the new converts. After Mohammed's death the collection and distribution of the *ṣakāt* was taken care of by the caliphs and their representatives. With changing social conditions the practice of *ṣakāt* was considerably modified or disappeared altogether. In Mohammedan jurisprudence, however, this ancient institution kept its prominent place.

Thirdly, there are certain prescriptions for the Muslims with regard to fasting. It is not certain whether they existed already in Mecca. In Medina the so-called '*Āshūrā* day, i.e. the Day of Atonement of the Jews, was first designated as a day of fasting; but after the split with the Jews the period of fasting was altered into the entire month of Ramaḍān, the month during which the Koran had been sent down (Sūra 2:181). This meant that during the daytime hours of that month the believers were not allowed to partake of food. Ramaḍān is the ninth month of the Mohammedan lunar year, which will be treated below ¹).

The three duties mentioned above originally were more or less successful copies of religious activities practised by the Possessors of the Scriptures. The fourth rite, however, the *ḥadjj* or Pilgrimage, was borrowed by Islam from pagan ceremonies taking place each year with the Ka'ba in Mecca as a centre; one of the Arabian months, Dhū'l-Ḥidjdja, was called after it. Mohammed was aware of the pagan character of these ceremonies, but after the conquest of Mecca, by his own example on the Farewell Pilgrimage, he purged them from heathen elements and brought them in harmony with the rites which Ibrāhīm was said to have instituted at Allah's command at the time the Ka'ba was built. The principal *manāsik* or "observances" of the Pilgrimage consist of processions around the Ka'ba and a visit to the plain of 'Arafāt, situated at approximately ten miles east of Mecca. There the pilgrims have to spend the 9th day of the month Dhū'l-Ḥidjdja; next, there is a procession to Minā, a small township situated between 'Arafāt and Mecca, where a sacrificial ceremony is held on the 10th. In principle every Muslim is obliged to make the Pilgrimage once during his lifetime. Because of this the Pilgrimage remained at all times a strong binding factor in Islam, and the native city of the Prophet retained a much greater significance than Medina, the capital of the first caliphs. Many historical events in Islam are in

¹) See below, p. 239.

some way connected with the leading person's Pilgrimage to Mecca, while moreover many went on Pilgrimage as often as they could. In this connection special mention is made of the the first caliphs.

Upholding the "Ordinances of Allah" naturally was the task of Mohammed's successors. This did not mean that they could force the Muslims to observe them, for to a Muslim the fulfillment of his religious duties is a matter for which he is accountable to Allah alone. Moreover, the caliphs could not impose new religious duties on the Muslim community after he who transmitted the ordinances of Allah had died. Yet, apart from being worldly and military leaders, they were also in a way religious leaders; in that capacity they bore the title of *imām*, a title which was due to them because of their leadership in the communal *ṣalāt* on Fridays (already under 'Umar in some instances a special *ṣāhib al-ṣalāt* was nominated in the provinces). As leaders of the community the caliphs were assisted and controlled by Mohammed's faithful retainers, the "companions" or *ṣaḥāba*. The latter preserved and transmitted the memory of the Prophet's words and deeds, thus supplementing the prescriptions of the Koran.

The institution of the Caliphate itself had been foreseen neither in the Koran nor by Mohammed. It had been a result of circumstances, but its acceptance by the community, after ancient Arab custom sealed with an oath of allegiance, was in itself sufficient sanction. As was the case in later times with many other Mohammedan institutions, the Caliphate was on these grounds considered to be an institution intended by Allah. Moreover, the words and deeds of the first three caliphs, and likewise those of the "companions", also gained a certain measure of authority. Later on they are depicted as paragons of piety and patriarchal simplicity. Together with 'Uthmān's successor, 'Alī, they are called the four "rightly directed caliphs". Actually, however, with 'Alī a totally new phase began, as we shall see in the next paragraph.

One of the undertakings of the earliest caliphs was the establishment of an authorized text of the Koran. According to Mohammed's teaching, the "recitation" performed by him, the Koran, was the sign that he was a genuine Prophet, and as such it was an inimitable miracle. It is quite probable that at the time of the Prophet's death certain parts of the Koran had already been committed to writing, but in its entirety it was preserved in the memories of Mohammed's contemporaries. Attempts at establishing an authorized version of the Koran seem to have already been undertaken by Abū Bakr or 'Umar. The reason given for this was that a great number of people who

knew the Koran had fallen in battle, and that therefore its tradition might get lost in this way. During 'Uthmān's reign there were several versions of the Koran in circulation; they were recognized as correct by certain groups of Muslims in the conquered regions, and they had been compiled by various respected "companions" of the Prophet. Hence there was a considerable uncertainty as to Allah's Word, which gave rise to several quarrels. 'Uthmān therefore commissioned a number of experts to compile an authoritative text, which found general acceptance, except in Kūfa, where for a long time a different version was followed. This time the only concern was the establishment of the consonant text; for a long time to come, future generations were to be at variance on the correct reading of the vowels.

Concerning the general structure of the Koran there seems to have been very little difference of opinion from the earliest times onwards. The Scriptures of Allah are divided into 114 chapters or *sūras*, which in their turn are subdivided into verses called "signs" after the idiom of the Koran itself. The *sūras* vary greatly in length, from 286 "signs" in the longest to 3 in the shortest one. They have been arranged in such a way that the longest *sūras* come first, followed by the others which gradually diminish in length. Only the first *sūra*, called al-Fātiḥa, the "Opening One", consists of no more than seven verses. It is a prayer to Allah for His unerring guidance, and its recitation is a fixed part of every "ritual prayer". The *sūras* all have a name, usually deriving from a characteristic term or proper name occurring in the text. Furthermore, for every *sūra* an indication is given whether it has been "sent down" in Mecca or in Medina. Modern research has taught us that tradition is rather reliable on this point. The later and shorter *sūras* mainly contain the "prophetic" warnings during the earliest period of Mohammed's activities. The contents of the *sūras*, however, are conspicuously disconnected; especially in the longer *sūras*, portions which do not correspond as to their subject-matter appear to have been arbitrarily combined. Thus, the attribution of a composition to a specific period in Mohammed's life is not necessarily valid for all portions. The whole has become a patchwork quilt, and reading it is a most unsatisfactory pastime for the uninstructed. Precisely this incoherence, however, indicates the high age of its compilation, and insofar as it has been possible to trace them, older editions never vary too widely as regards this general order of compilation.

Thus the first Book—the Koran is also known as al-Kitāb, "the Book" or "the Scripture"—in Arabic had been written. This was

a literary event of far-reaching significance. The Koran has remained the basis of all erudition in Islam, and its text is being used in all cultural areas. For the achievement of this strongly binding element Mohammedan culture is indebted to the period of the first caliphs.

The oldest extant manuscripts of the Koran are all written on vellum or leather in Kūfic script; the earliest known manuscript dates from 785 A.D. Some Oriental libraries boast of possessing Koran-manuscripts of 'Uthmān himself, but none of their claims appear tenable. Probably very few complete manuscripts were manufactured in the earliest period. Soon, however, "Allah's Word" became the most-copied book of the entire Arab literature.

Another institution typical of the unity of Islam is the Mohammedan calendar which came into being in the early days of the caliphate. Its introduction is generally ascribed to 'Umar who, it is alleged, was induced to this by the reproach that he left his numerous letters undated. Before Islam the Arabs had counted in lunar months (from new moon to new moon), but in order to harmonize this with the length of the solar year an intercalary thirteenth month was inserted at irregular intervals. The ensuing uncertainty had a bad effect on public order, since there were certain months of the year during which, by a kind of divine truce, the tribes were not to carry out surprise raids on each other. Now the Koran contains a verse which is not altogether clear, to the effect that intercalation is a proof of unbelief (Sūra 9:37). In consequence of this verse the Muslim year became a lunar year which is shorter than the solar year by eleven or twelve days. This radical calculation is very simple, and it has been put into use in the entire world of Islam. As the beginning of this calendar the first day of the month Muḥarram was adopted, i.e. July 15, 622, this being the first day of the year in which the Prophet carried out his *hidjra* or "evasion" to Medina. Of course this lunar year caused difficulties in the administration concerned with the levying of taxes on the harvest. In Arabia with its limited agriculture this difficulty was not so much felt, but in other Mohammedan countries, especially in Egypt, the ancient local calendars were maintained for the purpose.

Not much is known of the manner in which the first caliphs maintained public order in the young Muslim community, but we do know that they as well as their military governors regularly performed the duties of a judge. In some places they are even said to have appointed judiciary officers (*kādī*). The Koran contains several injunctions concerning criminal law, such as theft being punishable by the cutting

off of hands, and capital punishment for street robbery; also flogging of adulterers and of those who falsely accuse others of adultery. We are also told that Mohammed and his successors made the drinking of wine punishable by flogging; the Koran does prohibit the enjoyment of wine (Sūra 2:219), but it does not specify the punishment. In general, neither in earlier nor in later times could Mohammedan magistrates fall back on an established criminal code. This may be explained by their religious qualms about equalling Allah as a legislator. There exist hundreds of inscriptions of Mohammedan rulers, but none of them is an edict establishing legal criteria or rules of conduct. There were, of course, customary laws, but for the reason mentioned already these were never codified. Only certain customary rules, mainly dating back to the early Medinian period, such as the flogging of persons who violate the prohibition of wine, have been incorporated in the rules of the Law of Allah as elaborated by later scholars.

Caliph 'Umar in particular is said to have personally maintained a strict supervision on the public behaviour of the Medinians, as the Prophet must have done. This control on public morality, above all with regard to trading and marketing, later became a fixed institution in the big cities of Islam, and in the system of Mohammedan law it was acknowledged under the name of *ḥisba*.

In accordance with ancient Arabian conditions, however, many acts disturbing peace and order remained outside the range of government interference. The Koran explicitly recognizes blood vengeance and the payment of blood money as a penalty for manslaughter or wounding. The theory of Mohammedan law, too, never got beyond this standpoint.

Similar conditions prevailed in civil law. The Koran contains more precise rules concerning marriage and succession only. It often appears from the text and from tradition that these rules had been given incidentally, mostly because of specific events. Thus, Sūra 4:3 contains the well-known prohibition against having more than four wives, but from the context it appears that this was prompted by the desire to protect the people from squandering their property, and in particular from squandering the property of orphans. Also the regulation prohibiting a man to remarry a woman after having repudiated her three times (Sūra 2:230) was aimed at creating a greater amount of social stability amidst the rather chaotic conditions prevailing in ancient Arab society. At most, therefore, these regulations were calculated to cope with conditions in the Prophet's environment. Through Koranic

sanction, however, they had become ordinances by which all subsequent Muslim generations felt at least theoretically bound. Apart from this, a number of customary laws concerning ownership and property, which had come about or existed among the earliest Muslim generations, gained a certain authority. They retained their influence in the elaboration of jurisprudence by later scholars, even though they did no longer fit social conditions which in the meantime had undergone a marked evolution.

Thus, in the earliest period of Islam important contributions were made to the religious and secular institutions regarded by later ages as the will of Allah.

6. *The "People of the House"*

The assassination of 'Uthmān unleashed for the first time a considerable strife among Mohammed's followers. Many tensions which had risen during the first period of conquest now became clearly manifest. There ensued what is less happily called civil war; the Arabic expression however is *fitna*, i.e. "temptation" by Allah. This expression goes back to a figure of speech in the Koran, and it is characteristic of the typically Mohammedan notion that Allah was instrumental in kindling political passions, each group being convinced of possessing evidence of its sole justification in the sight of Allah.

The conflict was occasioned by the succession to the caliphate and imāmate, and concentrated around 'Alī, the son of Abū Ṭālib.

Abū Ṭālib was a brother of Mohammed's father. During Mohammed's difficult first years in Mecca Abū Ṭālib, being the chief of the clan, had afforded him protection, although he himself never embraced Islam. His son 'Alī, however, Mohammed's junior by thirty years, according to tradition had been among the first believers. Until the Prophet's death he remained one of his most faithful followers. At the time of the evasion to Medina he rendered valuable service, and afterwards he took part in most of the important military exploits. His link with Mohammed became even more close through his marriage to Fāṭima, one of Khadīdja's four daughters. This marriage took place shortly after the Hidjra, and five children were born from it, the two sons Ḥasan and Ḥusain being the eldest. Fāṭima died in the year 11 (632), shortly after her father.

These sober genealogical facts gained tremendous importance in the slogans with which later on 'Alī's adherents defended his claims to the caliphate and imāmate.

Being a cousin and son-in-law of the Prophet, and at the same time one of his first "companions", 'Alī could indeed claim an influential position, especially since Mohammed had left no son. Hereditary succession to leadership, if the heir had shown his capability, did often occur among the Arab tribes who counted ancestry a highly important social asset. The fact that, nevertheless, 'Alī had not become Mohammed's immediate successor must be ascribed to the democratic nature of the early Muslim community whose members considered themselves brothers in the first place; by his evasion to Medina Mohammed himself had shown to have less regard for his family ties. It appears moreover from the sources that 'Alī was not a strong personality, at least not of the calibre of a man such as 'Umar. When 'Uthmān was elected, 'Alī himself had been a member of the electoral board, but at that time the tendency to appoint a less powerful personality had prevailed.

During 'Uthmān's reign, however, the various factions must gradually have taken shape, and, if tradition is to be believed, it was then already that 'Alī had an advocate. This was a certain 'Abd Allāh ibn Sabā, a Jew from Yaman turned Muslim, who established the doctrine that every Prophet was given a plenipotentiary (*waṣī*) and that for Mohammed this function was fulfilled by 'Alī. This same man had also belonged to the agitators against 'Uthmān among the troops in Egypt. Thus, there was a faction adhering to 'Alī, which did, however, by no means include all the other "companions" who were dissatisfied with 'Uthmān's regime. It is difficult to state the reasons for the animosity between the adherents of 'Alī and the other "companions"; they may very likely be traced back to Mohammed's family circumstances. 'Alī and Fāṭima belonged to the earliest group of family members; by his later marriages, especially with the daughters of Abū Bakr and 'Umar, the Prophet had established new family ties, which roused an understandable feeling of rivalry among the earlier family group. The fact that the family members of the Prophet on his father's side—the descendants of his father's brother 'Abbās, especially his son 'Abd Allāh ibn 'Abbās—sided with 'Alī also points in this direction. 'Ā'isha on the other hand, the daughter of Abū Bakr and Mohammed's favourite wife, later became a staunch adherent of the anti-'Alī faction; she had, moreover, a special reason for harbouring a grudge against 'Alī.

In the meantime, after 'Uthmān's death 'Alī was inaugurated in Medina as the new caliph (656) without too much trouble. Soon, however, a number of prominent Kuraishites refused allegiance to

him, saying that 'Alī was not the right person to take revenge for 'Uthmān. 'Alī had indeed benefited from his predecessor's death; but historically it is not at all certain that he had been implicated in these dramatic events; the slogan "revenge for 'Uthmān", however, was to become an effective weapon in the hands of the Umayyad faction. The influential "companions" Ṭalḥa and Zubair rebelled at the same time; accompanied by 'Ā'isha they went to Mecca.

What happened next is typical of the political changes brought about in Islam: Ṭalḥa and Zubair went to Baṣra and 'Alī left Medina for Kūfa. This means that the quarrel about the succession was no longer an internal Arab affair, but that the troops stationed in the conquered territories had full right to a voice in the matter. This again was in accordance with the democratic spirit in the new order as created by Mohammed. The troops were no longer the Bedouin anarchists of yore, but had begun to consider themselves citizens of the newly created commonwealth. And around them in the cities large groups of local elements had been formed, which strove to gain social equality with the new rulers. The citizens' choice of a party was naturally determined by the feelings of influential resident families, as well as by a number of Mohammed's "companions" who had had first preference when governors were appointed. Ancient tribal antagonisms, moreover, fanned the rivalry between the cities. It is clear why 'Alī did not go to Syria: Mu'āwiya, the governor residing in Damascus, was an Umayyad. Kūfa was already notorious for its rebellious and fickle nature; this city had been the first to show dissatisfaction with 'Uthmān's regime.

On the way to Kūfa 'Alī passed Baṣra, from where a small army, collected by Ṭalḥa and Zubair, marched to meet him. This band was defeated near Baṣra in the "Battle of the Camel", thus called because the fighting centered around the camel on which 'Ā'isha had accompanied her associates. In this way, Baṣra fell into 'Alī's hands. He then established his residence in Kūfa, but in the meantime Mu'āwiya too, the champion of the Umayyad faction, had gathered his armies and marched from Syria against 'Irāq. The opposing armies both encamped in the plain of Šiffin along the Euphrates near Raḳqa, facing each other. After a long series of battles, lasting over a hundred days, it looked as though 'Alī's army was to retain superiority; this was on July 28, 657. By means of a ruse Mu'āwiya then succeeded in persuading his adversary to leave the decision to a court of arbitration. The ruse is said to have been that the Syrian troops balanced 500 copies

of the Koran on the points of their lances, this being a sign that they wished to appeal to the judgment of Allah. It is not at all certain whether at that time so many copies of the Book of Allah were available. It is, however, probable that a solemn appeal to Allah was sufficient for a number of high-minded and pious men to hope that in such a manner this fight or "temptation" could be brought to a close. But it is equally probable that, if the idea originated with Mu'āwīya, it was not straightforward, as will appear from the sequel of this story. When the arbitrators nominated by both parties convened in Southern Syria the following year, 'Amr ibn al-Ās, the conqueror of Egypt and representative of Mu'āwīya, succeeded in outwitting 'Alī's representative by means of a false argument, thus maintaining, under the slogan of revenge for 'Uthmān, Mu'āwīya's claim to the caliphate.

This did not solve the conflict, and the result was the splitting up of the territories conquered by the Muslims: through the influence of 'Amr ibn al-Ās, Egypt too recognized Mu'āwīya as its caliph, while 'Alī had to be content with an unstable control over 'Irāq, Arabia and Persia, directed from Kūfa. The event had dealt a heavy blow to his prestige, and it had an even more serious sequel. A number of his adherents, bearers of the Muslim tradition of the earliest times and "Koran experts", were so disappointed at the failure of the arbitration that they bitterly reproached 'Alī for having consented to it. In the same year (658) they left Kūfa together with the troops loyal to them, and with the Koranic slogan of "judgment belongs solely to Allah" (Sūra 6:59, et al.) they encamped in a separate spot outside the city. They also appointed a leader, which meant that they were in open rebellion against the caliphate.

In Mohammedan history these fanatical rebels bear the name of Khāridjites (lit. "the seceders"). Their movement brought into existence a non-conformist attitude which was to remain an important element in the disputes around the formation of an Islamic theology during the following generations. Not only did they reject 'Alī's caliphate but also 'Uthmān's, and they went about massacring anyone who thought differently. They were, moreover, joined by a large number of fanatical elements, many of them non-Arab, for the Khāridjites began to take seriously the Islamic concept of the equality of all races, a concept hitherto accepted in theory only. Evidently 'Alī had to deal with these rebels, and in July 658 he inflicted a crushing defeat upon them near Nahrawān on the eastern bank of the Tigris. The movement, however,

continued to ferment in 'Irāk and Persia. In 661 'Alī himself was slain in Kūfa by a Khāridjite murderer. His grave in the city of Nadjaf, near the ruins of ancient Kūfa, is indicated by one of the big Shī'ite mosques; it is an important pilgrimage centre.

Thus, around 660, the positions were defined. Four factions had emerged in the conflict, each more or less having a geographical centre. The Umayyads in Syria; 'Alī's adherents, called the *Shī'a* after the Arabic expression *shī'at 'Alī*, "the faction of 'Alī", in 'Irāk; the group which had formed around the former "companions" of the Prophet, in Mecca and Medina; and, finally, the Khāridjites. For the time being the Umayyads were to retain superiority and restore political unity (*djamā'a*), though not without a hard struggle. In those times the concept of Islam was as yet inseparable from the idea of an actual political unity under one head.

In the meantime 'Alī's adherents, or the Shī'ites, as we shall call them henceforth, had continued to idealize their hero. None of the other factions had a person in their midst who could so easily be made to share the glory given to the Prophet in his community. Thus, they spread many rumours to prove that Mohammed had honoured 'Alī above all other "companions" and had designated him as his successor. The pronouncement valued most highly was the pronouncement of Ghadīr al-Khumm. This is the name of a pond between Mecca and Medina, where Mohammed is said to have rested on his return to Medina from the "Farewell Pilgrimage" shortly before his death. It was here that he took 'Alī's hand and declared: "Whosoever acknowledges me as his lord, he will also acknowledge 'Alī as his lord". After this, he is said to have enjoined those present to preserve carefully two treasures in particular: the Book of Allah, and the "People of the House".

This latter expression is taken from the Koran. "Allah only desireth to put away filthiness from you of his house", as it is said in Sūra 33:33. Most probably this refers to the inhabitants of Mecca who lived around the House, i.e. the Ka'ba. The tradition favouring 'Alī, however, interprets this as referring to the holy family of Islam, i.e. the members of the Prophet's household including 'Alī with Fāṭima and both his sons Ḥasan and Ḥusain. They all enjoy the special favours of Allah. A well-known Shī'ite tradition tells how Mohammed put his cloak around these four and promised them special blessings from Allah. Fāṭima is represented as the shining example of feminine beauty and virtue. It is important, too, that 'Alī's sons are considered to be entitled

to his privileged position; this means that the principle of legitimacy was extended to 'Alī's posterity, and that they too had a right to the imāmate.

The same 'Abd Allāh ibn Sabā' mentioned above had also taught that the divine spirit, dwelling in every prophet, is transferred to his plenipotentiary, and from him to his descendants. It also seems that 'Alī during his lifetime even was the object of divine worship to certain fanatics whom he felt obliged to execute.

All this contained the germs of the sectarian doctrines of the later Shī'ites, and above all of much strife. The Shī'ites' attachment to their imāms was strengthened by the fact that none of their champions fully attained to the position claimed for them in the Mohammedan community. This turned them into martyrs. 'Alī died at the hands of a murderer, and his sons did not fare much better.

In 661, after his father's death, Ḥasan, the eldest son, was inaugurated as a caliph in Kūfa. He appears, however, to have been easily persuaded to negotiate with Mu'āwiya who used any means to enforce his own recognition as a caliph. He accepted a compensation and retired to Mecca, where he died at the age of 45. He too was made a martyr by Shī'ite tradition which ascribed his death to poisoning.

Ḥasan's brother Ḥusain, however, was to become the greatest martyr of the Shī'a. He too had gone to live quietly in Medina under the watchful eye of the Umayyad governor. After Mu'āwiya's death, however, and the accession of his son Yazid, the worshippers of 'Alī in 'Irāq thought they could make an attempt to have their claimant openly come forward with his claim. After some hesitation Ḥusain accepted the invitation of his partisans and set out for Kūfa. In the meantime, however, the Umayyad governor of Kūfa had succeeded in suppressing the preliminary arrangements. Ḥusain heard what had happened just before he reached Kūfa, and he encamped in the nearby locality of Karbalā. There he was surrounded by Umayyad troops despatched against him. When he refused to surrender, these troops attacked and killed Ḥusain together with a number of his retainers.

The tragedy of Karbalā came as a shock to Mohammedan conscience and had its repercussion throughout the subsequent development of Islam, much more so than 'Umar's and 'Uthmān's violent death, and even more so than 'Alī's own assassination. This event caused the rift to be felt between the secular and political attitude as represented by the Umayyads, and the idealism of the pious. For even to the non-Shī'ites the "people of the House" remained highly honoured men of

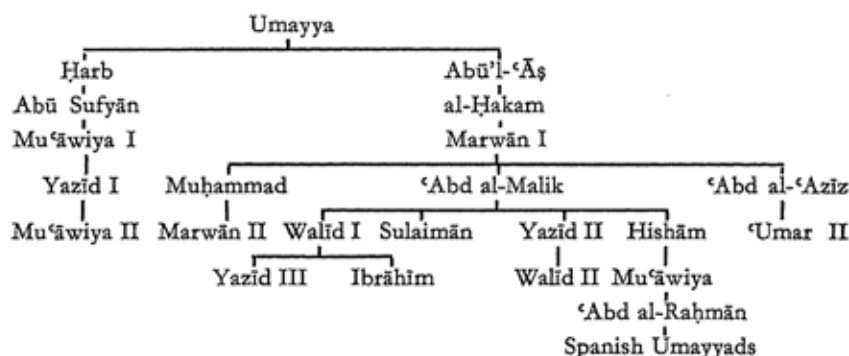
the genesis of their religion. The Shi'ites themselves went much farther in their worship of 'Alī and his descendants, and in their condemnation of anyone who opposed their divine rights; the first three caliphs are cursed by most Shi'ites as usurpers.

Whereas certain descendants of 'Alī have been allotted a superhuman worship as imāms according to the doctrine of the Shi'ites, his numerous other descendants still enjoy a special reverence in all circles as sons of the Prophet; especially so the descendants of Ḥasan and Ḥusain (there are also branches descending from 'Alī's later marriages after Fāṭima's death). By no means all descendants of 'Alī are Shi'ites, but many among them, especially the posterity of Ḥasan and Ḥusain, did play or tried to play a politico-religious rôle. The fact that most of them met with but little worldly success has correctly gained them the title of children of misfortune. Ḥusain, however, remained the great martyr of the Shi'a. A large Shi'ite mosque in Karbalā is the centre of an annual pilgrimage by thousands of Shi'ites from Persia.

7. *The Syrian Rulers* *)

The country where Mu'āwiya resided as governor, and which for nearly a hundred years was to remain the centre of Islamic political

*) *Genealogical Table of the Syrian Umayyads:*



List of Rulers

Mu'āwiya I	661-680	'Umar II	717-720
Yazīd I	680-683	Yazīd II	720-724
Mu'āwiya II	683	Hishām	724-743
Marwān I	683-685	Walīd II	743-744
'Abd al-Malik	685-705	Yazīd III	744
Walīd I	705-715	Ibrāhīm	744
Sulaimān	715-717	Marwān II	744-750

power, was by no means *terra incognita* to the Arabs. Arab tribes lived here on the plains and in the steppes along the Euphrates up to the mountainous country on the Mediterranean coast where the big hellenized cities were situated. Sometimes Arab kingdoms too, such as Palmyra in the 3d century, had exerted their authority over some of these cities. For many centuries the larger cities such as Antioch, Emesa, Damascus, Boṣrā and also Jerusalem, had been outposts of Hellenistic culture in the Orient. Especially in the coastal cities a rather heterogeneous population had sprung up, while the older Semitic or Semitized element of the population, consisting of Phoenicians, Hebrews, Aramaeans and also a considerable number of Arabs, more and more asserted themselves inland, always, however, as bearers of a culture inferior to Hellenistic culture. Christianity, in many sectarian varieties, had spread everywhere and had brought into existence imposing churches and populous monasteries. A uniform Christianity based on an extensive literature had never developed here, in contrast to Mesopotamia on the other side of the Euphrates where, since the 4th century, Edessa had been the centre of monophysite Christianity with its own ecclesiastical literature written in the Eastern Aramaic variety of Syriac. Furthermore, ever since the earliest times Syria had been subject to influences from the farther Orient by way of Mesopotamia. More than once it had been the scene of invasions from Persia. As late as the early 7th century, from 604 to 628, the whole of Syria as well as Egypt had belonged to the territory conquered on the Byzantines by the Sassanid Khusraw Parwiz.

The civilization of this Syrian and Palestine territory as a whole gravitated towards the West, i.e. the Byzantine empire. This was also the case with the more provincial city culture which distinguished Mecca and Medina from their nomadic surroundings. To the charge of this civilization Islam, still in its infancy, was first committed for its education.

With the rise of Mohammed it was the turn of the Arabs. At this time the mightiest confederation of tribes in the vast steppe region between Syria and Mesopotamia was the Kalb. The large majority of the Kalbites were Christians. They had more or less taken over the rôle of the former buffer state of the Ghassānids. They controlled the watering places and oases along the entire desert border as far southwards as the Hidjāz. This enabled them to control the caravan traffic from the south and east, for their own benefit. Relations between the Kalbites and Mohammed had begun at an early date, and for this reason Islam

found ready acceptance with them. Mu'āwīya too had allied himself with this powerful tribe, among other things by marrying a Kalbite woman who gave birth to his son and successor, Yazīd. The Kalbites, however, in traditional Arab fashion, were irreconcilable enemies of the tribal group of the Kais who, not so long ago, had dwelled in Central Arabia but had gradually marched north. The Kaisites had embraced Islam rather late, and their Northern Arab ancestry contrasted with the Southern Arab origin vaunted by the Kalbites. In different times this contrast would have been sufficient to render the formation of a durable Arab state impossible. Thanks to Islam's postulate of unity, however, the Umayyad empire was able to outlive the repeated crises born of tribal enmity, notwithstanding the support which several claimants to the throne obtained from the Kais. If, however, the central power of the new empire had remained in Medina, it would probably have perished—in spite of Mohammed.

On account of his political successes against 'Alī's faction Mu'āwīya was able to obtain general recognition of his authority. He also succeeded in carrying through the principle of hereditary succession, by having his son Yazīd honoured as his successor to the throne during his own lifetime. In this way the Umayyad house became the first genuine dynasty in Islam, a feat never attained by 'Alī's faction. Mutual envy among the family members, however, implicating tribal feuds among the Arabs in their cause, often prevented a regular succession from father to son. When Yazīd (680-683) suddenly died, leaving behind a minor son at a time when the unity of the empire was threatened anew by politico-religious antagonisms, an old-fashioned tribal war broke out in Syria and the adjacent desert. For the time being this war ended with the battle of Mardj Rāhiṭ, where the Kalbites defeated the Kaisites and put Marwān, their candidate, on the caliph's throne. Marwān was an Umayyad, but he belonged to a different branch of the family. This branch was to retain the caliphate until its downfall in 750. Here, too, brothers and cousins succeeded more frequently than sons.

The political history of the Umayyads can be divided into three periods. The first is the period of Mu'āwīya's strongly personal regime which renewed the policy of conquest. Most important were his attempts to bring the Byzantine empire to submission. The large-scale expeditions against Constantinople especially are well-known. The city was attacked from the land and the sea, and between 667 and 673 it was almost under constant siege. At the same time there was

continuous warfare in the border regions of Cilicia and West Armenia, the routes by which the Arab armies at times penetrated far into Anatolia, without succeeding, however, in establishing a permanent occupation. In the East the lost territories in Khurāsān were reconquered, and a strong garrison was posted in Marw. The Khāridjites too had to be dealt with throughout Persia. On the western front the militant hosts of 'Uḡba ibn Nāfi', marching from Egypt, penetrated deeply into the Berber country, at the same time chasing the Roman-Byzantine garrisons from the coastal cities. Tangier is said to have been reached too about 680. For the future greatness of Islam in these regions, however, the most important fact was the founding in 670 of the city of Ḳairawān in Tunisia: again the choice had fallen on a locality on the desert border, and not on the coastal cities of Carthage or Tunis. This period came to a close with Yazid's caliphate. Then followed the Shī'ite disturbances in 'Irāk beginning with the tragedy of Karbalā, while in 681 'Abd Allāh ibn Zubair established his anti-caliphate in Mecca. Thus the empire threatened to fall apart.

Marwān's succession to the throne consolidated the position in Syria again. This was the beginning of the second period of which Marwān's energetic son 'Abd al-Malik (685-705) and the latter's palace-building son Walid (705-715) were the outstanding personalities. 'Abd al-Malik, who so soon succeeded his old father, was the most brilliant personality of the dynasty, and no less was he a pioneer of Islamic culture. In 692 he caused the downfall of the anti-caliph in Mecca, a few years after the latter himself had suppressed the dangerous Shī'ite uprising of Mukhtār in Kūfa. These events, important from a socio-religious viewpoint, will be dealt with in a later section, as well as the rôle played in them by al-Ḥadjdjādī, 'Abd al-Malik's famous and notorious governor of 'Irāk. Furthermore, under 'Abd al-Malik the last great and lasting conquests of new territories for Islam were undertaken. In 704 general Ḳutaiba ibn Muslim began his expeditions from Marw in Khurāsān to the northeast, which led to the crossing of the river Oxus in 706 and, during the following years, the acquisition of Bukhāra and Samarḳand, as well as Khwārizm (Khwā), the delta region of the Oxus on the Aral Sea. Armed clashes with the Turks were unavoidable. The farthest point reached was Ferghāna. Everywhere Arab vice-governors were installed. In the southeast, Arab armies penetrated in 711 into the Indus valley where in 713 they took Multān. During these same years the western front too showed an almost symmetrical

expansion. Since 698 commander-governor Mūsā ibn Nuṣair had succeeded here in gradually subduing the rebellious Berber country and consolidating Arab power as far as Morocco. Then, in 711, Ṭāriq, his second-in-command, crossed the Gibraltar Straits and established a bridgehead in Spain or, as the Arabs say, Andalus. The following year Mūsā himself landed in Algeciras, and with an army of Arabs and Berbers he defeated Roderick, King of the Goths, and conquered Toledo, his capital. With this event any centrally organized resistance in this country was broken. During this period there was a lull in the fighting with Byzantium, until in 715, during the caliphate of Sulaimān, son of 'Abd al-Malik and brother of Walīd, the last large-scale expedition by land and sea against Constantinople was undertaken by Maslama, a brother of the caliph; in 717 the Arabs were forced to retreat.

During the third period the administrative problems of the huge empire demanded all the energies of the Umayyad caliphs. They are closely connected with the big social problems caused by the evolution of life under Islam. Certain tensions had emerged, which found expression in religious and ideological slogans, and eventually contributed to the disintegration of Umayyad power. Owing to these influences 'Irāk and the farther Orient in particular were drifting apart more and more, thus revealing more clearly the tendency of Umayyad rule to gravitate towards the west. The most important Umayyads of this period were 'Umar II (717-720), Hishām (724-743) and Marwān II (744-750), the last caliph of this house. Especially under Hishām many expeditions were prepared for the conquest of the Byzantine territories in Asia Minor, which may be considered a symptom of western orientation. But with the vicissitudes of war the border regions did not change hands. The conquests in the extreme west were extended beyond the Pyrenees — in 719 Narbonne was captured—till finally in 732 the famous battle between Tours and Poitiers took place, in which the Arab and Berber armies were routed by the King of the Franks, Charles Martel. No longer was Islam to retain its conquered territories in France. During this time, consolidation in Iran and Turkestan was considerably hampered by opposition of the Turks and the more fanatical Khāridjites who, under able leadership, temporarily occupied large parts of Persia. Khāridjite propaganda by now had penetrated also into North Africa; it was involved in a widespread Berber uprising against the Umayyads, whose army was severely defeated in 741.

Marwān II, the last of the Umayyads, had risen to power amidst dynastic wrangles. Only after great efforts had he obtained his recognition as a caliph in Syria. He relied for this on the support of the Kais tribes, whose feud with the Kalbites had flared up anew. After this, all his energies were directed towards placating the menace from the east, which was eventually to wipe out his reign and his dynasty.

The curious relationship which developed between the Umayyad regime and the transmitters and elaborators of the spiritual values of Islam was the cause of their ill fame as accursed usurpers of leadership in the subsequent historical appreciation built within the framework of those spiritual values. It is true that many of the Umayyads did not observe the rules which had been elaborated by pious contemporaries as the Law of Allah; only 'Umar II did find favour with posterity, because during his rule he showed more appreciation of the ethical and social criteria embedded in Islam. The merits of the Umayyads for Islam, however, are to be found in the fact that they provided a political backing for this mighty spiritual movement in the time of its early growth. For this they fell back on pre-Islamic values, in the first place their common Arab origin, as Mohammed himself had done in his later years. Their state was an autocracy rather than a theocracy, and it had an Arab national character; regardless whether they were good Muslims or not, the Arabs constituted the privileged class overagainst the peoples of the conquered territories. The Umayyads themselves, too, were true Arabs in that they actually had no fixed residence. Only Mu'āwiya used to dwell in his palace in Damascus; Yazīd resided in Tiberias in Palestine, and the other Umayyads preferred the palaces they had built for themselves in Transjordan and the Syrian desert. Hishām resided in ancient Ruṣāfa on the Euphrates which he reconstructed; there he and a number of later Umayyads lie buried. Several members of the ruling house served their sovereign as commanders and governors. Notwithstanding their subsequent ill repute, the sons of Umayya did retain a high degree of popularity in Islam, as can be seen from the numerous anecdotes circulating about them in pseudo-historical narratives.

What the Arabs lacked in political tradition was supplemented by the experience of Byzantine and Sassanid civil administrators. In the beginning there was not much change in the system of local government, but 'Abd al-Malik, whose powerful position best

enabled him to do so, endeavoured to strengthen the power of his central administration. One of his measures was the replacement of the existing official languages—Greek and Middle Persian—by Arabic. Though at first causing great difficulties, the enforcement of this measure brought into existence a class of Mohammedan civil servants which eventually broke through Muslim-Arab caste-consciousness. As to the functioning of the administration and the earliest use of Arabic, many papyri from Egypt and some finds on Iranian territory give valuable information. Another of 'Abd al-Malik's unifying reforms was the standardization of currency, combining the gold standard, current in the Byzantine empire, with the silver standard of the Iranian countries, and having gold and silver money coined with legends in Arabic (gold *dinārs* and silver *dirhams*). Moreover, the ratio between gold and silver was fixed. Coins of earlier Muslim rulers and governors are also known, but they had kept pre-Muslim standards and sometimes still used Greek and Middle Persian legends. Through trade the Umayyad coins were widely distributed far beyond the boundaries of Islam proper, as finds in Northern Europe have shown.

With the expansion of the empire, the administration of the state finances gradually became more involved. For this reason the governors of the larger provinces obtained a high degree of financial autonomy; they had only to remit the balance of their treasury to the central treasury. Apart from court expenses, the main expenditure was the pay of the standing army which in Mu'āwiyā's time, as far as the Syrian household forces of the caliph were concerned, seems to have consisted of 60,000 men, and towards the end of the dynasty even of 120,000. Among the various taxes constituting the state income the land tax (*kharāj*), to be paid by the subjugated non-Muslim population, was the most important. Apart from this tax, there was the poll tax of the conquered peoples; the tithe (*'ushr*), levied on Muslim landed property; several taxes imposed on traffic; and tribute payments and shares in the spoils of war. For this involved administration several chanceries were established in the capital and in the cities of the larger provinces. They were named, with a Persian word, *diwān*. As said above, Arabic was introduced as a chancery language. The central government eventually appointed independent tax collectors who took over this function from the governors.

The principle that Muslim landed property was exempt from land tax had serious results. As the acreage tilled by non-Muslims decreased,

owing to their conversion to Islam or to acquisition of the land by Muslims, this important source of revenue gradually diminished. Notably in 'Irāk the governor had for this reason proceeded to demand land tax also from Muslims. This measure had brought about widespread discontent and confusion. The Umayyad caliph 'Umar then intervened with a regulation which honoured the principle that Muslims were exempt from land tax, but henceforth prohibited Muslims to acquire assessable land by purchase. This measure which testifies to the caliph's respect for the old institutions of Islam seems to have contributed to the stabilization of finances. The continuing Islamization of the population, however, was eventually to render maintenance of this old tenet impossible.

The Umayyad caliphs did not yet rule by means of almighty vizirs, as did their successors, the Abbasids. They were still easily accessible to their Arab compatriots, and wherever possible they personally discharged their traditional judicial function in lawsuits which were brought before them. In their function of imām, moreover, they were still conducting the communal religious services in the mosque. A ruler like Walid II, who indulged in a dissolute life in his desert palace far from Damascus, and who conducted state affairs in an irresponsible manner, was an exception; having ruled for little over a year, he was surrounded and killed in his distant residence by rebellious troops.

Thus, during the earliest generations of Islam the Umayyads upheld the idea of the state and, whether intentionally or not, became an example to the countless dynasties after them which claimed to be Mohammedan. On the other hand, because of its peripheral location Syria never regained a leading position in the later world of Islam.

8. *The New Mode of Life*

During the Umayyad period the contact of the slogan bearers of Islam and public life in the conquered countries led to the manifestation of a new mode of life which, while incorporating many newly discovered values, nevertheless was dominated by the pattern of Islamic philosophy of life. It was in the cities that the contact with the new order was to appear most clearly: not in the newly founded garrison towns, but in Hellenized cities such as Antioch and Alexandria, where material culture had reached a degree of refinement unknown to the Arabs. Farther east, in regions such as Mesopotamia and Persia, these differences were not so marked. At first the conquer-

ors, of course, avidly enjoyed this unknown luxury and comfort, but they were as yet unable to create the political and economic conditions guaranteeing the same level of material prosperity, even though they were quite ready to adapt themselves to the new habits of life. Hence a more frugal mode of life was inevitable. Moreover, the strong feeling of dependence on Allah, inherent in Mohammedan piety, was bound to temper, even more than Christianity, an interest in the public forms of amusement, notably the circus games, and other occasions for public gatherings so typical of Hellenistic city life.

In the urban society of Islam the big mosque is the actual centre of public life, even if the gatherings do not serve an exclusively religious purpose. The new garrison towns, too, had been built around the central mosque; directly adjoining it was the government building which was also the governor's residence, and together they formed a traditional complex. Around it were the living quarters of the troops, subdivided according to tribal groups. They constituted the later districts. This actually became the original pattern of a Mohammedan city. In Syria it never existed in this pure form, but in Mohammedan times a city like Damascus also came to have the same general pattern.

Thus, the mosque is a very important characteristic of the Mohammedan mode of life, and likewise its structure and workmanship are a typical concrete expression of a spiritual vision in rhythmical forms. The difference between a mosque and a large number of Christian churches lies in the fact that, while these churches themselves contain an object of adoration, the mosque in its entirety is a means towards worship, whereby only the direction of worship is indicated by the niche (*mihrāb*) in the wall turned towards Mecca. The Meccan sanctuary, which is grouped around the Ka'ba, is the sole exception. Thus, with the Mohammedan mosque a new type of architecture was introduced in art history, and its early growth during the Umayyad period is worth while tracing. Since, however, very little has been preserved in its original form, we possess no direct evidence.

Of the early mosques in 'Irāk and further eastwards nothing has remained, mainly because the clay material used there was subject to rapid decay. The primitive mosques in Baṣra and Kūfa have already been mentioned; during the early Umayyad period they were rebuilt with plastered brick walls and with stone pillars preferably taken from ancient edifices. The new mosque of Kūfa, built in 670, measured over 3000 square feet; the hall of the *kibla* side (the *ḥaram*) had a teakwood roof supported by innumerable pillars. There seem to

have been no arches, and the architects clearly had the intention to imitate the galleries known from Persepolis. A similar type of "yard mosque", consisting of a yard with surrounding galleries, was the house of worship in Medina, as reconstructed in 712 by caliph Walid I on the spot of Mohammed's former residence; its present structure is probably not very different. The same Walid also constructed more worthy surroundings for the Ka'ba in Mecca by enclosing it with galleries in the manner of a mosque yard.

In Syria, however, most mosques were reconstructed by altering and extending the existing churches. The best known example is the so-called Umayyad mosque in Damascus. It originated from the Christian St. John's basilica which itself had been built on the foundations of a pagan temple in the centre of the city. The three east-west naves came to have the function of the *ḥaram* of the mosque, and the *mihrāb* was constructed in the middle of the southern wall. The mosque yard surrounded by galleries was added in front of the northern wall, with in its centre the indispensable well for the ablutions. Opposite the *mihrāb* a broad transept was built in, crowned in the middle by a dome. In a line with the transept on the outside of the northern wall of the yard, a minaret was built in the shape of a square tower, after the example of the existing towers of this church and of other Syrian church towers. The reconstruction was completed in 705; before this time the sanctuary had been used by Muslims and Christians alike.

The well-known big mosque of Kairawān, the so-called Sidi 'Oḳba mosque which was built in 702 but afterwards underwent many alterations, is of the same Syrian type with a transept and a dome. This is also the case with the Zaitūna mosque in Tunis dating back to 732, and with the famous big mosque of Cordova in Spain. Though the construction of this latter mosque did not begin until 785, it retains the same Umayyad style. Characteristic for these mosques is the fact that their outer walls with built-in turrets resemble a fortress, probably because in the early days they were used mostly by troops.

The church built in the time of Justinian on the south side of the temple plateau in Jerusalem underwent similar alterations. Here, however, the entire plateau was considered to be the mosque yard. In the centre of this plateau is an even more curious building dating from the Umayyad period; this is the "Dome of the Rock", thus called after a piece of rock protruding from the ground, which in the pious legend is connected with Mohammed's "Nocturnal Voyage". This building is also called "Omar's Mosque", though it was not built

by 'Umar but by caliph 'Abd al-Malik in 691. Moreover, it is not a mosque. It was the caliph's intention to create in a traditionally sacred spot a pilgrimage centre which could compete with the Ka'ba; at that time the Ka'ba was in the hands of Ibn al-Zubair, the anti-caliph in Mecca. The Dome of the Rock consists of an octagonal "rotunda" with a slightly pointed dome. There is nothing specifically Islamic about the architecture of the entire mosque, with the exception of the pointed arches in the interior; these, however, are the result of a much more recent restoration. The mosque is situated to the south of the Dome of the Rock; it is called the Aḳṣā mosque.

For a knowledge of the secular mode of life we are fortunate enough to possess the evidence of a number of palace ruins in Transjordan. They were the desert residences of the Umayyads so frequently mentioned in the literature. In general, palaces and private houses of the earliest period of Islam have not been preserved, in contrast to a number of mosques whose venerability caused their survival, be it in restored form. Hence, Mu'āwiyā's splendid palace in Damascus is known to us from descriptions only. The desert surroundings, however, did preserve some important data for cultural and art history.

The so-called Mushattā palace, approximately 125 miles south of Damascus on the same latitude as the northern tip of the Dead Sea, and the smaller residence of Ḳuṣair 'Amra, on the same latitude but another 25 miles to the east, are best known. Mushattā (i.e. Winter Palace) consists of a square complex of buildings surrounded by a wall 480 ft long in either direction, and fortified with round towers. This type must have existed already in pre-Islamic times, and its plan shows a similarity to the Roman castra. In the central part was a large inner courtyard adjoining on one side the large domed royal hall, while on either side were court dwellings and quarters for the guards. This scheme shows features which are known from Persian Sassanid palaces, as well as Byzantine architectural elements. It was a well-known palace type which we find again in the subsequent period in Irāk. There has been some doubt in the past whether Mushattā belongs to the Mohammedan period, but the fact that the wall of one of the halls contains what seems to be the niche of a mosque renders this quite likely. The main entrance facing the royal hall is flanked by two half-turrets which, together with the adjoining façade, are decorated with stone sculptures. The style of these decorations has attracted much attention because it seems to be a transition from a rather accurate rendering of floral and animal motives — on one

side of the entrance gate—to a more rigid and conventional type of decoration—on the other side. This latter type was to become characteristic for the arabesque decoration, known in the entire realm of Islamic art, which displays only floral and geometrical motives. The entire façade has been transferred to the Kaiser Friedrich Museum in Berlin.

Kuşair 'Amra is much smaller and consists of a main hall covered with a threefold stone barrel-vault, and of rooms adjoining the hall. One of these rooms is a bath house paved with marmor and mosaic, and with paintings on the walls. Among these there are paintings of hunters and bathers, done in a completely Hellenistic style. Nevertheless we have to do with the palace of a Mohammedan ruler, as is evidenced by the remnants of a painting depicting the caliph and, facing him, four figures representing rulers defeated by the Arab armies; they are the emperor of Byzantium, the king of Persia, the king of the Spanish Visigoth empire, and probably the queen ruling in Bukhāra. Their names are indicated both in Greek and in Arabic script. From this evidence it is practically certain that Kuşair 'Amra was the pleasure haunt of an Umayyad ruler, probably Walid II, whose predilection for erecting buildings, mainly in distant places, has often been recorded in the literature.

The presence in the palaces of Mohammedan rulers of paintings depicting human beings and animals is in glaring conflict with Islam's prohibition of images, as laid down in later ritual literature. No doubt a prejudice against such images did already exist among the pious of the Umayyad period; for the prohibition can be traced back, if not to the Koran, at least to a pronouncement of the Prophet, to the effect that they who make images of living beings shall suffer the heaviest punishments, and that the angels shall not enter a house where such images are found. However, relations between Umayyad circles and those who scrutinized the Law of Allah were usually strained. There had, moreover, not been sufficient time for the Hellenistic art tradition in Syria to adapt itself to the Mohammedan way of life which was in the process of formation. Nevertheless, the transition to arabesque decorations as found in Mushattā shows that this way of life was gradually breaking through. It is, moreover, certain that the mosques of this period no longer contained any image depicting living beings. There is a definite connection between the Mohammedan abhorrence of images and the iconoclastic movement in the Christian Church of the East which was particularly directed against crucifixes and images of saints in the churches.

As regards secular edifices, in actual practice people never bothered very much about the prohibition of images, as appears more and more from archaeological finds. But the influence of the Mohammedan way of life is noticeable in that such images were less and less to be seen in public places, and that the depicting of human shapes and of animals showed a marked tendency towards stylization and integration into the decorative pattern. There never was any question of making painted or sculptured images as an end in itself; sculptures, moreover, directly evoke the idea of idols.

Thus, during the first century of Islam, the growing austerity of public life by the exclusion of everything which could not be interpreted as having a religious function had already made itself felt also in regions which had formerly belonged to another culture. This cannot be said of life indoors. Great luxury prevailed at the court of Damascus and in the pleasure haunts, and there was an unbridled enjoyment of wine and of music which was executed by specially trained slave girls. The palaces were grouped around inner courtyards paved with marmor and gardens with ingeniously constructed fountains and watercourses. This luxury, making avid use of the achievements of Byzantium's refined culture, was not only to be found in Syria, but also and particularly in Mecca and Medina, where the conquests had caused the influx of immense riches. Of this frivolous life of pleasure in the holy cities of Islam we obtain a glimpse through the work of some contemporary Arab poets. Best known is 'Umar ibn Abī Rabī'a, famous for his beauty and his riches. He lived in grand style in Mecca—where he died in 711—and sang to the praise of ladies of high rank who came to Mecca on pilgrimage and willingly received his attentions. It is said that he had many a gallant adventure in the encampments of Mecca pilgrims and in the houses of the rich. A poet of the same genre was Waddāh, who came from Mecca to Damascus on account of a secret love affair with 'Ātika, the wife of caliph Walid I. His life, it is told, ended in a romantically cruel way because the caliph ordered the chest in which he had hid himself to be buried in the ground.

Judging especially by such stories of poets' adventures with the fairer sex, it seems probable that during the first generations of Islam women had not yet been driven from public life to such an extent as was the case in later ages in most Mohammedan countries. In Mecca the position of women was nearly equal to that of men, as appears from the accounts concerning Khadīdja, Mohammed's first wife. Similarly,

though some passages in the Koran prescribe chastity in intercourse with women, and particularly reserve towards the wives of the Prophet, yet the social subordination which kept them imprisoned behind veils and in women's quarters is unknown in its pages. On the other hand, the regulations in the Koran concerning the inferior value of the testimony of women and also concerning repudiation as a form of divorce, indicate the direction which Islam was to follow later. The accompanying phenomena, however, such as the establishment of harems in the palaces of the great, are institutions which existed in the culture of Asia Minor long before Islam. It seems that not until the reign of Walid II eunuchs were introduced in the palaces of the Umayyads.

The taste for and love of Arabic poetry brilliantly survived the social revolution brought about by Islam, notwithstanding the apparent disdain of the Koran for poets. The traditional forms of poetry remained unchanged in the process, but genres were changed in that the occasion for writing poetry was more rooted in the new reality. Thus, laudatory as well as defamatory poems were often inspired by political and sectarian passions; a poet would revile his rival by saying that he belonged to a tribe which Allah had denied both prophets and caliphs. It is understandable that, as before, tribal quarrels played an important rôle.

Love poetry, too, drew its inspiration more than before from actual love relationships, as was the case with 'Umar ibn Abī Rabī'a mentioned above. The lover's complaint, moreover, was no longer exclusively an introduction to an essentially panegyric *ḥaṣīda*, as in former times. In fact, it happened quite often that a poet dedicated his art exclusively to one favourite beauty; thus, through poetry certain lovers' couples have become famous throughout the Arab world. Known best of all is the poet ʿKais who sang in praise of Lailā, and whom love rendered insane; because of this he was even better known under the name of Madjnūn, the Possessed One. Furthermore, there were desert poets who continued the old classical genres with a greater or lesser degree of originality.

Syria itself, the seat of the Umayyads, was not very rich in poets. Some caliphs, however, invited poets to their court, such as al-Akḥṭal (d. 710) who became a court poet of 'Abd al-Malik. Al-Akḥṭal came from a tribe in the border region of Mesopotamia which professed Christianity, and he himself likewise remained a Christian; in these times this could still be tolerated by Mohammedan society. Together with the poets Farazdaq and Djarir (both d. 732), al-Akḥṭal belongs

to the famous trio of poets of the Umayyad period. The former two came from 'Irāk, and they are famous because of a personal quarrel to which they gave expression for many years in a long series of outbursts, later collected and edited as the "Satires" (*naḡā'id*) of Farazdaq and Djarir. Both of them had connections with al-Ḥadjdjādī, the governor of 'Irāk; Djarir later came to Damascus, while Farazdaq led an adventurous and scandalous life of which his œuvre, as regards language as well as contents, is a faithful replica.

Some of the Umayyads were poets themselves, especially Yazīd II, the enjoyer of life, of whom wine and love songs, but also verses expressing wild hatred, have been preserved. He invited to his court the poet Ma'bad who had risen to fame in mundane Mecca.

It can hardly be said that there were religious poets during this period. Ḥassān ibn Thābit, a not very talented poet who eulogized Mohammed, rather was a writer of laudatory poetry. Likewise, the poet champions of the dissident politico-religious groups, such as Kuthayyir, the Shī'ite and worshipper of 'Alī, and Ṭirimmāh the Khāridjite, generally retain the characteristics of the tribal poetical champions of pagan times.

Poetry thus remained, in a more or less adapted form, an Arab heritage. There is no trace of foreign literary influence. It remained a powerful instrument in preserving a sense of national unity. This was also the case with prose literature, especially where used by caliphs and governors in their pulpit addresses in the mosques. These speeches produced their effect by means of the pithy quality of the rich Arab language. They are often coloured by the religious terminology of Islam. True Islamic prose literature, however, originated in other circles, as will be seen in the next paragraph.

9. *The "Vessels of Knowledge"*

Though the Umayyads had struggled towards political victory in Islam, the opposition had by no means been exterminated. This opposition was centered in the Ḥidjāz and in 'Irāk. 'Irāk especially followed 'Alī; he had also many adherents in the Ḥidjāz, but here, in the surroundings where the Prophet himself had worked, spiritual authority was mainly vested in his "companions" and their disciples, who found it hard to accept the transfer of political power beyond the boundaries of Arabia. We have seen already how one faction, headed by the "companions" Ṭalḥa and Zubair together with 'Ā'isha, had refused to recognize 'Alī's caliphate. Their defeat, however, followed by

Mu'āwīya's victory, had driven them together again; when 'Alī's sons Ḥasan and Ḥusain returned to Medina, they found a congenial atmosphere.

To this group also belonged 'Abdallāh ibn Zubair, a son of the same Zubair who had fought against 'Alī. For many years he had participated as a commander in the conquering expeditions in the east and west. He belonged to a distinguished Kuraishite family, and was, moreover, related to Mohammed and his wife 'Ā'isha. His prestige, therefore, was sufficient to enable him to start an anti-Umayyad movement. The opportunity presented itself at Mu'āwīya's death in 680. Ibn Zubair refused to recognize Yazīd as his successor, and retired to Mecca. 'Alī's son Ḥusain had done likewise, but shortly afterwards he had embarked upon his fatal journey to Kūfa in his attempt to seize power. Ibn Zubair is said to have urged him to answer the appeal from Kūfa. After the tragedy of Karbalā, however, 'Abdallāh had himself installed as caliph, and he had little trouble in winning the allegiance of Medina. In August 683, however, the Medinians were severely beaten by an army from Syria, and the subsequent siege of Mecca was lifted only by the news of Yazīd's death. However, the disputes around the Umayyad throne turned their fortune, and Ibn Zubair's general recognition as a caliph seemed at hand; in Arabia and 'Irāq especially his authority was firmly established. In 687 Muṣ'ab, his army commander and brother, suppressed in Kūfa the curious Shī'ite movement of Mukhtār which will be discussed in the next paragraph. Muṣ'ab was also successful in dealing with the Khāridjite troubles. In the meantime, however, 'Abd al-Malik, the energetical Umayyad caliph, had begun to restore the prestige of his dynasty. Ibn Zubair probably did not receive sufficient support from the tribes, and his power gradually waned. The end came in 692 when Ḥadjdjādī, 'Abd al-Malik's commander, laid siege to Mecca; a fortnight later the city was taken and Ibn Zubair, almost seventy years old, was killed.

The failure of the anti-caliphate made far less impression in the history of Islam than the events leading to Ḥusain's death. People were scandalized most by the fact that the sacred city of Mecca had been besieged twice, and that Ḥadjdjādī had used his catapults without any scruple, thereby inflicting heavy damage to the Ka'ba; this mainly accounts for his subsequent bad reputation among the pious. During the first siege the Ka'ba had caught fire, and the black stone had burst into three pieces. Afterwards Ibn Zubair had restored and

even enlarged the Ka'ba; but after the conquest in 692 this untraditional enlargement was again demolished.

Ibn Zubair's defeat did not result in a continued politico-religious resistance of his adherents against Umayyad authority, in the manner of the Shi'ites. There was a development in a different direction. The successors and disciples of the "companions" constituted themselves as a body of spiritual authority, a high court of the conscience of Islam, which looked upon the Umayyads in the north as ungodly usurpers and considered itself competent to prescribe the actual criteria of Islam, i.e. to transmit the will of Allah. The conditions of such a development of authority were inherent in the structure of Islam; its weapons were the Koran and the authority of the Prophet.

The centre of activities of these defenders of Islam was Medina, the city where the Prophet and his companions had been most active. Mecca, too, played its part, but it did no longer enjoy its former position of economic autonomy, trans-Ḥidjāz caravan trade having been diverted to the Persian gulf. Economically the Ḥidjāz had become dependent on the central government in Damascus which controlled the pilgrim caravans, and also gave large subsidies to political suspects such as 'Alī's descendants in return for their promise to remain quietly in the two holy cities. Thus, Mecca and Medina became centres both of pleasure and of the awakening of the intellectual life of Islam. The bearers of this intellectual life, however, had widespread contacts in the other metropolises of Islam in 'Irāk, Syria and Egypt, where the conquest had brought many former companions of the Prophet who were engaged in similar activities.

What the pious in Medina pursued was knowledge. Knowledge (*'ilm*) to them included everything which had been established by the revelation and interpretation of the Koran, as well as by the Prophet's instructions, in such a way that rules for the behaviour and attitude of Muslims could be distilled from them. This distillation of rules was an independent field of study called *fiqh*, and required reasoned insight (*ra'y*). The pursuit of *'ilm*, however, was of prime necessity; they who occupied themselves with this task were the "vessels of knowledge", the *'ulamā'* (the plural of *'alīm* which derives from *'ilm*). In most Mohammedan countries they are known by this name, also as a class in society; henceforth we shall call them the scholars, or scholars of the Law. In their function of determining the jurisprudence from the Law of Allah they are called *fuḳahā'* (plural of *faḳīh*, deriving from *fiqh*).

In order to gather the maximum of knowledge the scholars scanned all the information concerning the words and deeds of Mohammed on which they could lay their hands. It became customary to pay close attention to the origin of such information: which "companion" had been the first to mention one of the Prophet's words or deeds, and to whom he had transmitted this statement. Hence this work of compilation became known as *ḥadīth*, i.e. "statement". *Ḥadīth* thus became the technical term for everything transmitted concerning the Prophet. For this reason it is often rendered by "Tradition". Knowledge of the Tradition remained in high esteem throughout the subsequent generations, because it was the source of all *ʿilm* or "knowledge". Each separate tradition consisted of two parts: the text containing the facts of the tradition itself, and, preceding it, the chain of transmitters connecting the person making use of the tradition with the person who first mentioned it. Later ages theoretically maintained the obligation of oral transmission of the *ḥadīth*, but there are indications that traditions concerning the Prophet were recorded in written form since the earliest times. It was the beginning of a new branch of scholarly Arabic prose which was to develop into an extensive *ḥadīth* literature.

Traditions which provided data for a knowledge of the ordinances of Allah were considered most important. But there were also many traditions of a purely edifying nature, or those furnishing data for the exegesis of difficult passages in the Koran. The legal traditions indicated what was called the custom (*sunna*) of the Prophet, concerning questions of religious ritual as well as in civilian and political questions in general. This made them a powerful weapon in the hands of those who found support in them for their own opinions. Very soon, therefore, the temptation to ascribe, by using the form of a tradition, to the Prophet utterances confirming a much-cherished opinion, and to provide this tradition with a reliable-looking chain of transmitters, proved irresistible. Such pious or less pious forgery of traditions was committed especially for the sake of expressing political sentiment. In par. 6 we had already occasion to speak about Shi'ite traditions which were to confirm 'Alī's claims. Other traditions were directed in particular against the Umayyads; the Prophet was made to predict that the four "rightly directed" caliphs would be succeeded by a house of ungodly rulers. Against these, however, other traditions were brought into circulation vindicating the Umayyads.

But those who seriously studied the *Ḥadīth* were concerned with

finding out through the *sunna* of Mohammed what the Law (*shari'a*) of Allah required of Muslims; customs which were unsupported by evidence from the *sunna* were considered modernisms (*bid'a*) and hence condemned. Thus, the Medinian scholars elaborated a system of rules for all aspects of religious and civilian life. They increasingly tended to ignore existing customs and manners, and even preferred to go against the wishes and views of the much-hated government and its organs. In the field of law, however, some legal practices of early Medina seem to have been incorporated in the elaborated jurisprudence. Gradually the findings related to these laws were collected. The earliest known collection of this kind, still rather unsystematic, was compiled by the Medinian scholar Mālik ibn Anas (715-795); it bears the name of *al-Muwaṭṭa'*, i.e. "The Levelled Path".

Not until much later did the Mohammedan world reach some consensus of opinion concerning the jurisprudence. But so great was the religious authority of the scholars that their pronouncements were considered much more important than any general rules by the secular government, even though they were not in the least observed in practice. They created an ideal legal system which was recognized as the only true law. On the matter of religious observance discussed in par. 5 the scholars performed a useful regulating task, for the sources show that the believers were alarmingly ignorant of the manner in which these rites were to be executed.

The traditions concerning the Prophet were also collected with the aim of obtaining a coherent picture of his life. The traditional Arab interest in the warlike activities of the tribes was an influential factor, but at the same time there was a desire to have an equivalent to the biographies of the founders of other religions, such as Jesus and Moses. It is understandable that many idealizing and unhistorical additions soon found their way into this material too. Thus, there are good reasons to doubt the authenticity of most of Mohammed's later biography, the so-called *Sīra*. One of the earliest authorities in this field was the Ḥadīth specialist 'Urwa ibn Zubair (d. around 715), a younger brother of 'Abd Allāh, the anti-caliph; he is said to have compiled a Life of Mohammed. The main authority, however, was Muḥammad ibn Ishāq (d. 767), whose work has been preserved in a later version.

The biography of the Prophet is, in any case, not based solely upon the Ḥadīth, but also upon the activities of less pretentious popular

storytellers, several of whom are known by name. Some were of Jewish descent or Jews themselves, and they furnished the first Muslim scholars with valuable material for a knowledge of the history of the ancient prophets recorded in the Koran. In this way they assisted in the exegesis of the Koran and in the formation of the subsequent literature of "prophet stories". Much of their information eventually also found its way into the Ḥadīth, notably various fantastical predictions concerning the events of the Last Day and the Last Judgement. In the same manner Christian elements entered the Ḥadīth. Because of these various influences one is justified in saying that the Ḥadīth "became a mirror of the history of Mohammedan ideas during the first century of the Hidjra" (Wensinck).

The interest displayed in the life of the Prophet was extended to the lives of his "companions" and their disciples in successive generations. For these biographies, too, the data were collected during the Umayyad period; they are known to us from extensive biographical works of later ages.

Furthermore, the earliest records of a general historical nature originated in the same way and as a sequel to the biography of Mohammed. As was the case with the Ḥadīth, great value was attached to the addition of a chain of transmitters with the aim of giving the records a reliable air. It appears, however, that the scholars in Medina were less interested in historical events than those in 'Irāk and, to a lesser degree, in Syria. The earliest authorities referred to in subsequent works lived in 'Irāk, and they, moreover, reveal obvious political tendencies, especially pro- or anti-Umayyad.

As stated above, scholarship was not confined to Medina. In Syria too there were specialists of the Ḥadīth, and it was the Umayyads' policy not to alienate these scholars too much; the Umayyads must, of course, have been pleased with pro-Umayyad traditions as mentioned before. It is quite understandable that the Damascene scholars could not maintain the same spiritual independence as their colleagues in the Arabian province. Several among them, however, valued good relations with the court, as has been recorded of 'Urwa ibn Zubair whom we mentioned above. His disciple al-Zuhri (appr. 640-742), a highly esteemed Ḥadīth scholar, went so far as to settle in Damascus. He enjoyed the favour of 'Abd al-Malik, and he is said to have played into the caliph's hand when the latter prohibited the Pilgrimage to recalcitrant Mecca. On this occasion, it is told, he adduced a pronouncement by the Prophet to the effect that Jerusalem was as valuable a

Pilgrimage centre as Mecca. The pious Caliph 'Umar II also was kindly disposed towards the scholars.

In Damascus, moreover, the scholars of the Law had come into contact with Christian theologians. The Christian father John of Damascus lived at the Umayyad court of Hishām; in his book on heresy, "*De Haeresibus*", he polemized against the Saracens and their false doctrine which probably seemed to him and his fellow-believers a sectarian aberration rather than a new religion. It appears from this work that Christians and Muslims were already debating the question of free will, which is denied by the Muslims, and the nature of Jesus ('*Isā*). The birth of an independent Muslim apologetics and theology, however, was to take place in 'Irāk.

Bašra and Kūfa, the two big cities of 'Irāk, did play their part, too, in the labours of the scholars. Ties between Medina and Bašra were especially close. Anas ibn Mālik (d. appr. 710), a highly esteemed Ḥadīth scholar and junior contemporary of Mohammed, had come to Bašra as a representative of Zubair. He died there at a ripe old age. Still greater renown throughout the world of Islam came to Ḥasan al-Bašrī (642-728), born in Medina, but afterwards living in Bašra; at the time of the conquest of 'Irāk, his father had been carried off as a slave from these regions. Besides being a great scholar he was also a great orator. He showed an unusual independence of character towards the government, particularly towards the much-feared governor Hadjdjādī. He had a far-reaching influence on later generations; his piety, tinged with asceticism, made him a pioneer of later Mohammedan mysticism, and through his pupils he also represents the initial stage of theological education in Islam. Popular fantasy made him the hero of a series of miraculous adventure stories which were incorporated into the Arabian Nights.

A number of more moderate scholars among the Khāridjites had also settled in Bašra; the interest in theological questions had been roused there under the pressure of the intransigent Khāridjite attitude, declaring unbelievers all those who committed "great sins". A group opposing this thesis preferred to leave the decision as to what are great sins to Allah, and contented themselves with a mere confession of faith; they were called the Murdji'ites. Apart from this there arose the wellknown theological dispute about the question whether man can be held responsible for his deeds. The adherents of the dogma of free will were the so-called Qadarites. They opposed the determinism proclaimed in so many texts of the Koran, and, recalling the Christian

polemic against Islam mentioned above, it is more than probable that they borrowed their arguments from Christian sources. It was mainly among this group that, towards the end of the Umayyad period, a more principled school of theologians emerged, called the Mu'tazilites. They laid the foundations of dialectical theology in Islam. The founders of this school were pupils of Ḥasan al-Basrī.

The Ḥadith collections are the oldest sources informing us about the theological discussions; the Prophet was kind enough to let both friend and foe borrow from his authority.

Kūfa, too, the bulwark of Shi'ite aspirations, had its scholars. During the last decennia of the Umayyad period the famous scholar Abū Ḥanīfa (699-767) worked there. In the elaboration of the "jurisprudence" he gained as much authority as his contemporary Mālik ibn Anas of Medina. Moreover, Abū Ḥanīfa had a great influence upon the development of Mohammedan dogmatics, to such a degree that the earliest formulation of an Islamic creed was ascribed to him. In his theological convictions he seems to have been a Murdji'ite.

10. *Propaganda*

Since 656, when caliph 'Alī removed his headquarters to Kūfa, this city had remained a hotbed of anti-Umayyad feelings, not only among the adherents of 'Alī but also among the Khāridjites and the rivalling tribes. In general this mentality was characteristic of the whole of 'Irāk. Its geographical situation, dominated by the two big rivers Euphrates and Tigris, as well as the nature of its population which had been strongly influenced by Iranian culture, provided the conditions which enabled this region to retain its own distinct character within the Arabian empire. Since 'Irāk, moreover, was the threshold to the vast newly conquered territories in the east, the Umayyads wished to maintain a firm hold on this region at any cost. They succeeded in doing so because they were so fortunate as to find men who governed this unruly province for them with absolute loyalty to the dynasty but also with a great measure of independence.

Mu'āwiya's governor in Baṣra, and soon afterwards also in Kūfa, was Ziyād, a former partisan of 'Alī whom Mu'āwiya had succeeded in attaching to himself by personal favours. Ziyād ruled with severity; one of his measures was to transport 50.000 pro-Shi'ite Arabs to Khurāsān. 'Ubaid Allāh, his son, succeeded him as a governor in 676; he was the governor who took the necessary military measures to prevent Ḥusain from entering Kūfa (see par. 6).

During the turbulent years after Yazīd's death (683) 'Irāq came under the power of Ibn Zubair, the anti-caliph. During this period the rebellion of Mukhtār, the "False Prophet", occurred. This person had risen among the military settlers of Kūfa, and in Mecca he had been allied for some time to Ibn Zubair. In 685, however, after careful preparations, he openly denied this allegiance, and within a very short time succeeded in obtaining recognition throughout 'Irāq—except Baṣra—and Mesopotamia. He backed his action with the religious slogan that he was preparing the way for the Mahdī.

The Arabic word *al-Mahdī* means "the rightly guided one". It is an honorary epithet given especially to pious rulers such as the first four "rightly directed" caliphs. In times of political unrest and oppression the longing for such a "rightly guided" ruler naturally increased, and it is, therefore, understandable that the Shī'ites also used him in their slogans. But among the descendants of Ḥasan and Ḥusain there was at that time no suitable candidate. Hence Mukhtār had chosen as his Madhī another of 'Alī sons whose mother was not Fāṭima. This was Muḥammad ibn al-Ḥanafīya (i.e. Muḥammad the son of the Ḥanafitian woman). This person himself lived in Mecca, and he was rather embarrassed with the honours accorded to him; not without many reservations did he consent to Mukhtār's call, and he never came to Kūfa. This would have been impossible in any case, owing to the swift succession of events: already in 687 Mukhtār, whose behaviour soon reduced his following, was defeated by Ibn Zubair's governor and killed, after a siege, in Kūfa.

The great importance of Mukhtār's movement for the development of ideas in Islam lies in the fact that there must have been already eschatological notions in the concept of the Mahdī. According to these notions the Mahdī is a kind of saviour who shall appear in the latter days and who shall be the ideal ruler filling the earth with righteousness. In the Ḥadīth this notion has been formulated in predictions of the Prophet. It also found its way into the eschatology of non-Shī'ite circles, but with the Shī'ites the Mahdī—necessarily a descendant of 'Alī—became an essential feature of the doctrine of salvation as developed by them. The notion of a saviour is certainly not derived from the Koran, and is probably influenced by Christian and Parsic conceptions; according to some traditions the Mahdī announced is 'Isā-Jesus, or Jesus appears together with the Madhī in the times immediately preceding the Last Day. The conception of Mukhtār's Mahdī, too, was an eschatological one, as appears from the popular

belief that Muḥammad ibn al-Ḥanafiya, the man who was regarded as the Mahdī, continued to live hidden in a mountain near Mecca from where he would reappear in the latter days.

Mukhtār's rebellion, therefore, is an important early symptom of an extreme tendency in Shi'ite religious conceptions of which, in the course of the development of Islam, several other manifestations were to follow. However, by no means all of 'Alī's adherents deviated so widely from the dominant conceptions.

A further remarkable trait of this movement is that it was not exclusively confined to Arab Muslims, but that Mukhtār had made a conscious and successful effort to win a large part of the local population which had embraced Islam. His reliance on this non-Arab element seems to have contributed to the weakening of his position. Yet his efforts to draw this element into the politico-religious antagonisms in Islam shows an insight in the nature of the newly emerging Mohammedan society. Two more generations, and the influence of the Arabs as a social element disappeared into the various trends generated among the newly converted masses.

In 694, after the Umayyads had reconquered 'Irāk, Ḥadjdjādī began his governorship which was to last 20 years. Ḥadjdjādī originated from Ṭā'if, east of Mecca. He enjoyed the absolute confidence of 'Abd al-Malik. He had conquered Mecca for him and had been for some time its governor. The speeches with which he announced his methods of government from the pulpit in the big mosques of Baṣra and Kūfa have become famous in Arab literature. "I see already many heads loose on their shoulders", these were his words to all who dared rebel. The future would not lack rebellions, though, also on the part of non-Shi'ites, and there were times when the much-feared governor himself had to retreat. Around 700 he had surmounted the difficulties and could also begin the pacification of Iranian territory and of Khurāsān, where the Khāridjites for some time controlled entire regions. In 701 he began the construction of the new city of Wāsiṭ, which was to serve as a garrison city for the Syrian troops helping him to keep the country under control. Wāsiṭ means "middle": the city was situated between Baṣra and Kūfa on the banks of the Tigris, whose course at that time was much more to the west than at present. For a long time it was an important traffic centre, famous also as a centre of learning. After 1500 the city fell into decay, and even on its exact situation there is no consensus of opinion.

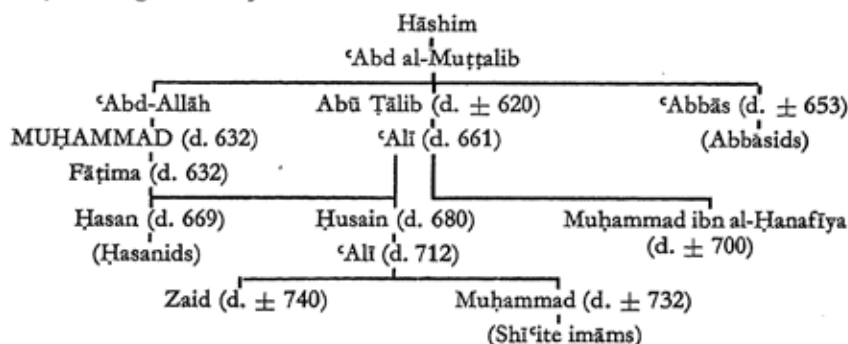
Pious tradition gives Ḥadjdjādī a bad name as an executive of the

will of the Umayyads, and there are exaggerated stories about his cruelty. Yet the many anecdotes about him do not always reveal him as an unsympathetic person; he could be disarmed by a witty remark as quickly as he could rise in anger. Even with Ḥasan of Baṣra, who was always a very outspoken man, his relations were usually friendly. His rule was meritorious on account of his currency and tax reforms and his canalization measures. Furthermore, an authoritative standard text of the Koran is ascribed to him, which seems to prove that in any case he attempted to be a good Muslim.

Yet another good governor of 'Irāk was Khālīd al-Ḳasrī (724-738), trusted adviser to caliph Hishām. He too exerted himself in measures benefiting agriculture. Shortly after Hishām's death he fell into disgrace, mainly as a result of the ever-recurring jealousies between the two tribes, each of whom were bent on having a candidate of their choice in the governor's seat.

Once in a while Khālīd had had to suppress Shī'ite disturbances. In 739 or 740, however, shortly after his departure, again there emerged in Kūfa a genuine descendant of 'Alī. This was Zaid ibn 'Alī ibn Ḥusain, which name indicates that he was a grandson of the martyr of Karbalā¹). Zaid, too, became a martyr for his imāmate, because his partisans in Kūfa showed little determination and little unity, as had been the case on previous occasions. His activities, however, were not at all accompanied by the eschatological zeal typical of the most fanatic Shī'ites. It was a clumsy attempt at throwing off the yoke of the weakened Umayyad regime. Yet this personal action by one of 'Alī's descendants made a deep impression; afterwards part of the Shī'a called themselves Zaidites after him. They constituted the least extreme wing of this heterogeneous group, merely endeavouring to

¹) *Genealogical Table of the 'Alids*



secure for the descendants of 'Alī their rightful imāmate. In certain regions they even succeeded in doing so. Apart from this they had no specific religious doctrines, and their scholars cooperated in elaborating jurisprudence and theology.

During this period attempts at terminating Umayyad rule, however, could not be termed as foolhardy as it would have been in the days of Hadjdjādī. The development of Muslim society had stirred the latent political, religious and social powers opposing the dynasty. This was a result of the incorporation into the Mohammedan community of large masses of new converts, and of the social admixture of this new element with the Arab ruling caste. The new Muslims allied themselves with the rival tribes or with politico-religious parties. The first manifestations occurred in 'Irāk with Mukhtār's uprising. As pointed out in par. 7, the new situation had confronted caliph 'Umar II with serious tax problems.

The first religious opposition party largely recruiting non-Arabs were the Khāridjites. Their extreme elements found ready adherence among the inhabitants of 'Irāk and among the Persians; because of this they succeeded in keeping large areas in a continuous state of rebellion. The more moderate Khāridjites, the so-called 'Ibādites, had established their headquarters in Baṣra, but after 720, when they too fell out with the authorities, they had started by means of secret messengers to make propaganda in Oman in Southeast Arabia and in North Africa.

This propaganda or "recruitment" (*da'wa*) is a typical phenomenon which, during the first centuries of Islam, accompanied most politico-religious turmoils. It often led to large-scale revolutions, and the Umayyads also were robbed of their power through this medium. But it was not Khāridjite propaganda which delivered the fatal blow to the dynasty. Although they had succeeded in bringing the North African Berbers to mass desertion under their own leadership, yet their principles were too anarchistic to render the formation of a new large-scale political group possible.

The active propaganda fatal to the Umayyads came from another side. Its instigators were the descendants of 'Abbās, an uncle of the Prophet. At first not politically prominent, they had generally shown sympathy for the aspirations of their relative 'Alī and his descendants. 'Abbās' son 'Abd Allāh, a cousin and younger contemporary of Mohammed, had been a well-known authority on the Ḥadīth, and under 'Alī's caliphate he had functioned as governor of Baṣra. Afterwards,

however, he had paid homage to Mu'āwiya. His son 'Alī was a person with more character; he left Damascus or was banished from there by Walid, and went to live in Ḥumaima, a locality situated on the Palestinian border along the caravan route to the Ḥidjāz. There he died in 736, but before his death his son Muḥammad had initiated a well-planned propaganda. He had excellent relations with Shī'ite circles in 'Irāk and the Ḥidjāz, and he is even said to have obtained the right to the imāmate from the son of Muḥammad ibn al-Ḥanafīya, the mahdī of Mukhtār. This latter contention is probably not historical, but it tends to show that this propaganda made use of all Shī'ite slogans. The true aim was, however, to place a descendant of 'Abbās on the caliph's throne.

Around 720 Muḥammad ibn 'Alī made Kūfa the centre of his propaganda, and from here he sent messengers to Khurāsān who would work for him there. The person in whose behalf recruitment was made was indicated as "he who will come".

For a propaganda of this kind Khurāsān was a suitable field of activities. In the government cities of Marw, and in the other cities, Nishāpūr, Herāt, Merw-i Rūd and Balkh, numerous Arab tribal elements had been stationed for the military protection of the northeastern part of the empire. Among these tribes the same rivalry had sprung up which in Syria divided the Kalbites and the Qaisites, though here they had other names. In their struggle they also made use of religious slogans which had by now penetrated everywhere, and they called themselves Khāridjite or Murdji'ite. The Umayyad governors had the greatest difficulty in maintaining their authority; it even happened that the governor's nomination was influenced by the predilection of contending groups. Under such circumstances the non-Arab population could not but be highly susceptible to promises of a brighter future and a better ruler. Here, too, some statements of the Ḥadīth were adduced which predicted the coming of a "rightly guided ruler".

In 738, under caliph Hishām, Naṣr ibn Sayyār had become governor in these regions. By taking energetic measures he succeeded at first in pacifying Khurāsān and Transoxania. By means of a very independent policy he also succeeded in alleviating the position of the non-Arab population overagainst the Arab element. This did not please the tribes, however, and after 744 he ran into serious difficulties with the powerful chiefs of the various tribal groups. There is a connection here with the troubles, unabated even after Hishām's death, when 'Irāk too was under the control of Khāridjites and other rebels.

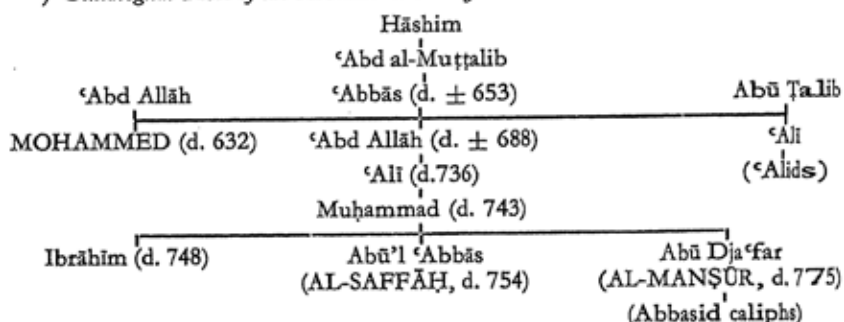
All this, in the meantime, made things easier for the Abbasid propaganda¹⁾. Abū Muslim, a young man of obscure non-Arab descent, became its powerful and able leader. He had rendered Muḥammad ibn 'Alī good services, and in 745 he had been sent to Khurāsān by Muḥammad's son and successor Ibrāhīm, in order to prepare the final rebellion there. By means of intrigues he succeeded in forestalling an agreement between the governor and the tribal chieftains, and obtained overwhelming support throughout the country. Naṣr keenly sensed the danger, and he sent urgent petitions to caliph Marwān II for military help, but in vain. There is a famous poem in which he warns the caliph:

Under the ashes I see coals aglow,
And they will soon to fiery flames be fanned.
From two twigs rubbed together fire sparks up,
Oft war of swords with war of words began.
If not stamped out, a battle will soon rage,
When youth will perish into grey and hoary past.
Amazed I stand, a question on my lips:
Is Umayya awake, or in sleep's ban?
And if our people slumber still by day,
Say then: rise up! Rebellion is at hand.
Flee, leave your goods, and say: woe unto us,
This is of Arab and Islam the end.

It was indeed the end of Arab rule, but not of Islam. On the contrary, Islam was about to enter a new and glorious phase, though perhaps not in the manner dreamt of by Naṣr.

In 747 the Khurāsān rebellion broke out. In December of that year the insurgents, who carried black banners, made their entry

¹⁾ *Genealogical Table of the Abbasids' Ancestry*



into Marw, and Naṣr fled to the west. Abū Muslim sent a large force after him under the command of Kaḥṭaba. In 748 Kaḥṭaba defeated Naṣr in Nīshāpūr, after which he conquered Rayy and Hamadhān, and defeated an Umayyad army near Isfahān. The next year the Khurāsānian troops conquered Kūfa. Marwān still made an attempt to avert the danger with a Syrian army, but on January 25, 750, he was utterly defeated in the famous battle of the Zāb, a tributary of the Tigris. This battle was decisive. While Marwān retreated step by step through Syria into Egypt, Damascus was occupied and the strongholds of 'Irāq and Syria fell one after the other; only Wāsiṭ held out longer. Surrounded by an ever-shrinking band of faithful followers, Marwān himself was overtaken and killed in Upper Egypt.

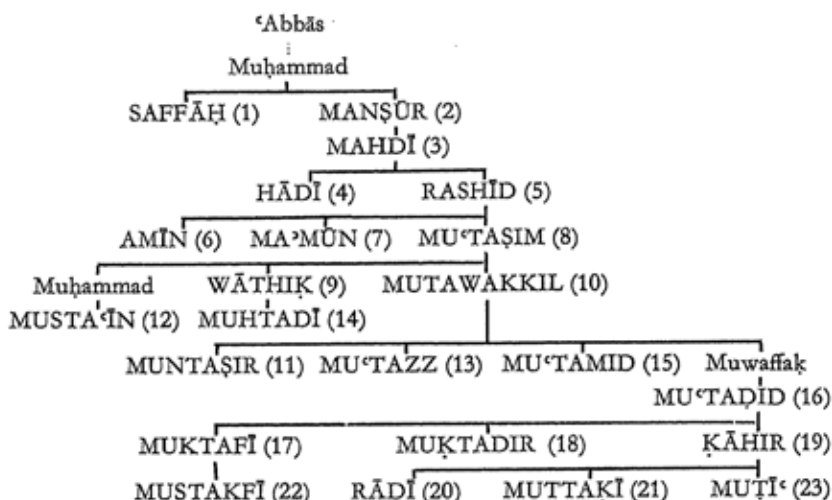
After the fall of Kūfa, fourteen descendants of 'Abbās went there from Ḥumaima. At the time of the outbreak of the rebellion imām Ibrāhīm had, too late, been arrested by Marwān, and had died shortly afterwards in prison. His two brothers had now taken over leadership. They were Abū'l-'Abbās and Abū Dja'far, both young men about 30 years of age. For a short while their destiny remained uncertain, because Abū Salāma, the powerful Abbasid agent in Kūfa, was in no hurry to recognize them as long as the defeat of the Umayyads was not complete; it is not altogether improbable that he had still other ambitions. In the end the installation of Abū'l-'Abbās as a caliph was forced through by the commanders of the Khurāsānian troops encamped near Kūfa. The adherents of 'Alī were thereby fooled in their aspirations. Abū Muslim, however, who by now had an overwhelming authority in Khurāsān, soon began to eliminate the less reliable elements, including Abū Salāma.

While the last Umayyad was fleeing to Egypt, the adherents of the Abbasids began, under the command of two uncles of the new caliph, a ruthless persecution of the members of the fallen dynasty. Throughout Syria and the Ḥidjāz they were treacherously attacked and exterminated. With the exception of the grave of 'Umar II, the graves of the Umayyad caliphs were violated and damaged beyond recognition. Among the few who escaped was 'Abd al-Raḥmān, a grandson of caliph Hishām; he succeeded in escaping to North Africa, and eventually laid the foundations for a new dynasty in Spain.

II. BAGDAD AND 'IRĀQ

1. *The Caliphate*¹⁾

When on November 28, 749, the Abbasid Abū'l-'Abbās was publicly acclaimed caliph in the big mosque of Kūfa, he held a speech in which he presented the Abbasids' claim to the caliphate as the will of Allah. He also stressed the common interests of his dynasty and of the inhabitants of 'Irāq. "Every dynasty has its centre, and you", he said to the Kūfians, "are our centre". The change of government was indeed a victory for 'Irāq, so differently disposed by its history and culture, over Hellenistic Syria. It had far-reaching consequences for the subsequent development of Islamic civilization.

¹⁾ *Genealogical table of the Abbasids**List of Rulers*

1 SAFFĀḤ	750-754	13 MU'TAZZ	866-869
2 MANŞÜR	754-775	14 MUHTADĪ	869-870
3 MAHDĪ	775-785	15 MU'TAMID	870-892
4 HĀDĪ	785-786	16 MU'ṬADĪD	892-902
5 RASHĪD	786-809	17 MUKTAḤĪ	902-908
6 AMĪN	809-813	18 MUḤTADIR	908-932
7 MA'MŪN	813-833	19 KĀHIR	932-934
8 MU'TAŞIM	833-842	20 RĀDĪ	934-940
9 WĀTHIQ	842-847	21 MUTTAḤĪ	940-944
10 MUTAWAKKIL	847-861	22 MUSTAKḤĪ	944-946
11 MUNTAŞIR	861-862	23 MUṬĪ'	946-947
12 MUSTA'IN	862-866

The revolution just completed was not a destructive one; it inaugurated a new era in which Islam as a social and spiritual phenomenon was to reach its highest peak. During the second century of its existence Islam became a cultural concept. But it is typical of Islam that this development could take place only after the struggle for political power had been decided in a theocratic manner. The Abbasid caliphate was the embodiment both of the changes in the political and social structure, and of the nascent culture itself.

All religiously tinged opposition parties, from the Shī'ites to the Khāridjites, had agreed on the necessity of a theocratic authority under one head for the entire community of Mohammed. They had not agreed as to who this person was to be, but the success of Abbasid propaganda now had presented them with an accomplished fact.

The Abbasids must have been anxious to stress the prophetic side of their office. They heaped favours upon the scholars, drawing them into their circle; they displayed a great interest in lectures and disputations about subjects concerning jurisprudence and theology, and saw to it that the princes were well-instructed in these matters. As said before, they laid special stress on their imāmate and its ensuing obligations to the congregation. Yet, in practice the title of "Imām" was not often used for the Abbasids, perhaps because this designation was more and more monopolized by Shī'ites and Khāridjites; since Manṣūr, however, the title of "Imām" became customary on coins, and also in the literature on the Law the leader of the Mohammedan congregation is constantly designated in this way. The special designation, however, became that of "Caliph", but was often extended to "Caliph of Allah" (*Khalīfat Allāh*). This expression had already been used in 'Uthmān's time; originally it meant the Prophet's deputy or successor installed on earth by Allah. The term could, however, be easily taken to mean the deputy of Allah Himself. A similar expression is connected with an ancient saying: "The magistrate (*sulṭān*) is Allah's shadow on earth, wherein all the oppressed find their refuge". The word "shadow" here is nothing but a metaphor for a safe shelter. Taken literally, however, the expression assumed a mystic note, bound to enhance tremendously the prestige of a person thus designated with the masses who, in any case, were inclined towards anthropomorphic conceptions. Such exalted notions did not remain theory only, as appears from the fact that shortly after his enthronement Manṣūr, the second caliph, was bothered by people calling themselves Rāwandites who surrounded his residence in order to

worship the caliph's divinity; the same had happened to 'Alī in his time. Manṣūr was obliged to take strong measures in order to keep these fanatics at a distance. If he had tolerated their fanaticism he would have lost the allegiance of the great majority of influential scholars.

The title "Amīr al-Mu'minīn", Commander or Controller of the Faithful, also remained in use, especially on the Abbasid coins; in Christian countries this title was corrupted to Miramolin. As to the term "Sulṭān", i.e. "Magistrate", during this time it was still an impersonal designation, becoming a title only during later dynasties.

Furthermore, the possession of the Prophet's mantle was a valuable asset supporting the Abbasids' claims. The same pretension is to be seen in the adoption by the rulers of religious appellations with an eschatological flavour. These were given in order to express the idea that the new dynasty was not exclusively an institution of this ephemeral world. The first caliph took the name of al-Saffāḥ, one of the designations of the Mahdī. The name means "mild growth", and his enemies were wrong in interpreting it as "he who sheds blood", though he probably did deserve this latter name. His brother and successor called himself al-Manṣūr, "he who has been guided to victory", while al-Manṣūr's son adorned himself with the significant name of al-Mahdī. The ruler's appellation of al-Mahdī's son Hārūn was al-Rashīd or "the rightly directed one"; it has gained the greatest renown through the Arabian Nights. Thus, all subsequent Abbasids are known mainly by their pompous and pious-sounding rulers' appellations. Even the heirs presumptive were garnished with these names, as appears from inscriptions.

Thus, the caliphate as a divine institution was welded into a form which fitted the ideal Mohammedan world empire according to what the scholars supposed to be the will of Allah. In their elaboration of the prescriptions of the Holy Law they also dealt with the obligations of an "Imām". They had already begun to do so under the Umayyads; their conclusions supported by the Ḥadīth were often inspired by criticism of the behaviour of that ungodly dynasty and by the pious tradition concerning the first four caliphs.

According to the books of the *fiqh* the imām must be a male, of age, of good conduct, free of physical imperfections, conversant with the Holy Law and capable of governing and defending the territory of Islam. To this the condition is added that he must belong to the Qur'aish tribe, but also that each caliph must be elected, as had been the case with the first four "rightly directed" caliphs. Actually it remained a

hereditary dignity within the Abbasid house, but the fiction of an election was maintained. The court dignitaries and the imperial grandees—including the other members of the dynasty—had to pledge their allegiance to the newly “elected” caliph. Some caliphs attempted to have their son or one of their brothers installed as caliph during their own lifetime, and this gave rise sometimes to bloody civil wars after their death. The doctrine, based on a Ḥadīth, that a caliph must be of Qurayshite descent, was of course directed against the Shī‘ites—who demanded an imām descending from ‘Alī—and the Khārijites—who did not recognize any genealogical limitations. The composers of eulogies, too, celebrated the divine pleasure in the new dynasty; some of these poets explain certain verses in the Koran as prognosticating the coming of the Abbasids.

The custom that the caliph in his function as imām led the services in the big mosque and preached the sermon (*khutba*) was practically neglected by the Abbasids, as it was neglected by the Umayyads. But the first Abbasids did practise traditional Arab eloquence from the pulpit whenever they had a special occasion for publicly announcing their views. Scholarly Arabic literature has more or less preserved many authentic speeches of this nature by the first two Abbasids. This usage, too, gradually disappeared with their successors, when the ceremonial of the court gradually prevented the caliphs from appearing in public.

It also became customary under the Abbasids to mention the ruling caliph in the prayers pronounced for the believers during the Friday services in the mosques of Mohammedan countries. When the Abbasids were no longer recognized everywhere, the omission of the caliph’s name in the *khutba* was a sign of the defection of the local authorities.

During the first century of Abbasid rule the caliphate became an institution linked with Islam and which survived political decay. Theoretically it was no longer possible to think of Islam without a caliph. Military support of the troops no longer existed, but the spiritual support of the scholars of the Law did remain. Thus the caliph, even when he no longer possessed actual power, was bound to be considered the bearer of spiritual authority who had temporarily delegated his worldly powers to others. This is how the scholars construed it. Actually, the distinction between these two kinds of authority is unknown in Mohammedan Law. In practice, however, “caliph” remained a title surrounded in the imagination by a religious halo. None but the caliph of Bagdad could call himself caliph. Even-

tually, however, the title, too, was no longer inviolable. During the 10th century when the Fātimids in Egypt asserted themselves as anti-caliphs, the unity of the Mohammedan world nevertheless survived. And still later the title of caliph was adopted by the most diverse rulers in order to add lustre to their prestige.

With the coming of the Abbasids a change came about in the mode of life at the caliph's court. Under the Umayyads much of the Arab patriarchal simplicity had lingered on, but their successors surrounded themselves with a ceremonial intended to lift them above common mortals. This development must be ascribed not only to the above-mentioned exaggerated religious evaluation, but also to the still influential tradition of Sassanid kingship which, before Islam, had also had its centre in Irāk. To the Iranians, too, royalty had been a divinely ordained and sacred institution, and their kings the bearers of unbridled authority who were allowed personal contact with the common people in exceptional cases only. Likewise, the caliph's court became the scene of a relentless wielding of authority. Every official, from the vizir to the headsman who stood in the immediate vicinity of the throne in order to carry out the death sentences at once, was the blind executor of the ruler's will. It appears from literary sources that the model of the ideal ruler was actually found in the numerous stories circulating about the Khosroans and their court. In the records and anecdotes embellishing the history of the Abbasid caliphs during the 8th and 9th century, and incorporated into the stories of the Arabian Nights, the same conception of Oriental despotism is to be found.

Another ancient Oriental trait in the Abbasids was their predilection for the building of new residences. Al-Saffāh soon left Kūfa and went to reside near Anbār on the Euphrates. Maṣṣūr, after some hesitation, selected the spot where Bagdad was to rise in 762. But their successors, too, often changed their residences. In 838 caliph Mu'taṣim moved with his entire court and government to Samarra, and later on Muta-wakkil even made an attempt at taking up residence in Damascus. With the decline of the caliph's power, however, the appetite for moving disappeared. Since 891 Bagdad remained the city of the caliphate.

The actual basis of Abbasid power was totally different from that of the Umayyads. The latter had relied on the Arab tribes in the Syrian desert. The Abbasids, however, depended for the defence of their power on the troops from Khurāsān which, apart from some Arabs,

mainly consisted of Iranian elements. Some of these now obtained influential positions at the court and in other parts of the empire, among them also Abū Muslim, Khurāsān's mighty general. The result was an ever-increasing Iranian influence on the new Mohammedan culture. Thus, the Abbasid caliphate was built on an entirely new social basis; its Arab national pattern had changed into a cosmopolitan one, for eventually the most diverse ethnic elements, such as Berbers and Turks, joined the state troops. This change to an a-national or supra-national character was a consequence of social changes which took place during the Umayyad period, that is to say the process of equalization of all Muslims. This was a consequence of the principles of Islam, and the Khāridjites and Shi'ites had put it into practice. The Abbasid dynasty, therefore, marked the completion of a social revolution. This notion was expressed by giving the dynasty the title of *dawla*; originally meaning "change-over" or "turn", this word came to be used especially for the new regime. Afterwards *dawla* came to have the general meaning of dynasty and government, both ideas which were never clearly distinguished in Islam. The Abbasids, however, were the first *dawla*. Their crack troops called themselves helpers or sons of the *dawla*. The Abbasid caliphate flourished for a short time, until about 833 when caliph Ma'mūn died. It was Manṣūr, the second caliph, who actually consolidated their power. He had the qualities of a statesman, and he shunned no means in eliminating potentially dangerous elements. Among those elements was Abū Muslim, to whom the dynasty owed its rise. Nevertheless, there were constantly all sorts of insurgent movements which had to be suppressed. The greatest threat to the caliphate's power was the tendency of powerful governors to gain de facto independence and to found hereditary dynasties, even though they still nominally recognized the caliph's authority. The western part of the empire was the first to be affected by these disintegrating factors. The example had already been given by the Umayyad descendant 'Abd al-Raḥmān in Spain, though he did not, as is often supposed, immediately sever all ties with Bagdad. His example was soon followed by the Shi'ite Idrisids in Morocco (beginning around 790), and by the Aghlabids in Ifrikiya or Tunisia (beginning in 800) who in 827 conquered Sicily. In the central regions the caliphate was strong enough to continue the fight with Byzantium. In 782 a Mohammedan army even made its appearance again at the gates of Constantinople, led by the heir presumptive Hārūn, the later caliph Hārūn al-Rashīd. There

was, however, no lasting conquest of Byzantine territory; Cilicia and the Taurus remained the frontier regions.

After Rashid's death (809) a struggle for power ensued between his sons Amīn and Ma'mūn; this was at the same time a struggle between the western army units, with more Arab leanings, and an Iran-oriented faction. In 813 Bagdad was besieged by troops from Khurāsān, and their subsequent victory meant the triumph of the Iranian faction and its champion, caliph Ma'mūn, who was himself the son of a Persian mother.

During the second period (833-945) disintegration also spread in the east, owing to the rise of dynasties sometimes fighting each other, the most durable among them being the Sāmānids in Khurāsān and Transoxania (900-1000). In 'Irāk the caliphs gradually lost control over their crack troops, formerly the dynasty's backbone. The commanders of these guards, who were Turks and Khurāsānians, undermined the central authority by interfering in politics; one result of their activities was the removal in 838 of the caliph's court and the government to Sāmarrā. Generally the dynasty remained strong enough to cope with serious socio-religious movements, notably the movement of the Karmāṭians which brought great devastation to Southern 'Irāk. The period after the caliph's return from Sāmarrā (891) is characterized by continuing decline of the dynasty's power, in which influential families of *grandees* played a leading rôle. Egypt too became practically independent during this time, under the Tūlūnids (since 868).

In their quest for military support the caliphs eventually came under the guardianship of local dynasty-builders, first the Mesopotamian Ḥamdānids, and next the Iranian Būyids (945). The new rulers dealt with the caliphs at will; the descendants of 'Abbās were either killed or deposed according to their whims, and they lived in the greatest humiliation.

'Irāk consequently ceased to be an independent cultural centre, and was drawn into the orbit of the Iranian brand of Islamic culture which in the meantime had come to life, in much the same way as in pre-Islamic times 'Irāk had been annexed by Iran. This general picture did not change when in 1055 the Būyids had to give way to the Turkish Seldjūkids. This was the third period (945-1180).

We could speak of a fourth period after 1180, because with the dwindling of Seldjūkid power caliph Nāṣir (1180-1225) succeeded in conquering for himself a territory in 'Irāk and West Persia. But

this was no more than one of the many independent state formations of that time, and consequently we can hardly speak of a cultural revival. It was no more than a last flicker. Together with the whole of Iran 'Irāk fell into the hands of the Mongols when in 1258 they conquered Bagdad. This also meant the end of the Abbasid caliphate of Bagdad.

Even then, however, the idea of the caliphate was not buried, as will appear from later chapters.

2. *Bagdad and Sāmarrā*

Bagdad is one of the so-called "Islamic cities" of the Mohammedan world, i.e. one of the cities founded under Islam. It shares this honour with other great residences such as Kairawān, Fez and Cairo, and also with the large garrison cities of 'Irāk: Baṣra, Kūfa and Wāsiṭ. No other Islamic city, however, became so typical of its kind as Bagdad, the foundation of the new *dawla*, the Abbasid dynasty. In less than 50 years after its founding, between 762 and 766, Bagdad surpassed all other cities of Islam in extent and prosperity. Later it sustained heavy blows. The caliphs left it, and they returned only to watch the age-long dominion of foreign rulers. If one side of the city fell into ruins, another part was rebuilt. Well into the 13th century Bagdad thus remained in the imagination the capital of the Mohammedan countries, a symbol of Islamic culture which together with it grew to maturity and whose dissolution began with its downfall.

Bagdad was founded by caliph Maṣṣūr, not, like the old army towns, on the desert border, but on the large river Tigris, on a junction of traffic by sea and by land to the four winds of heaven. The same region, intersected by canals connecting Euphrates and Tigris, had also harboured the ancient metropolises of Babel and Seleucia-Ctesiphon. Ctesiphon, the residence of the Sassanids, conquered a century before by the Arabs, was situated 22 miles downstream on the Tigris. And in the immediate vicinity of Bagdad, 10 miles to the west, the impressive temple ruin of 'Aḳarḳūf still stands, a reminiscence of the great city of Dūr-Kurigalzu which during the 14th century B.C. controlled the roads giving access to Assyria and Babylonia on the spot where Euphrates and Tigris were nearest to each other.

Bagdad is the Iranian name of a small settlement of older times. It means "given by the god". This god in all probability is Mithra, the Iranian deity, and thus this pre-eminently Islamic city preserves the imprint of a civilization conquered by Islam and yet continuing in another form. Maṣṣūr, however, called his city Madīnat al-Salām

wa-Ḳubbat al-Islām, "City of Salvation and Dome of Islam". In this pompous name we still can sense the eschatological atmosphere surrounding the Abbasids when they rose to power, and it is reminiscent at the same time of Madīnat al-Nabī, Medina the City of the Prophet.

Not a trace is left of the earliest settlement of Maṣṣūr, but we possess fairly accurate descriptions of its lay-out and construction. It was a perfectly circular fortress city surrounded by a double wall and moat; four heavily reinforced gate edifices had been built at equal distances: the gate of Baṣra to the S.E., of Kūfa to the S.W., of Syria to the N.W., and of Khurāsān to the N.E. Behind the inner wall was a zone, 300 to 400 yards wide, destined for private houses, while the passages in between them, radially diverging to the gates, were meant to be market streets. The circular space within this zone must have had a diameter of about 1 1/4 mile. In its centre lay the caliph's palace, called the "Castle of the Golden Gate" or sometimes the "Green Dome". With its sides measuring about 200 yards the palace was oriented towards the four city gates. As indicated by its name it was a dome construction, and the four entrances probably were shaped like portals vaulted by parabolic or pointed arches, so-called *iwāns*, a construction well-known from the remains of the Sassanid palaces. The height of the dome is recorded as over 120 ft; it carried an equestrian statue with a lance for a weather-vane. The palace itself was probably the centre of a larger complex of court and government buildings and barracks, constructed after the scheme of the Umayyad Mushattā palace and the residences known from Samarra. Part of it was a mosque court the S.W. facade of which indicated the direction towards Mecca.

It is told that from all the surrounding regions 100.000 labourers had been recruited in order to achieve a speedy construction. Well-known astronomers of the caliph's court determined the astrologically favourable time, and they also fixed the site indicated as auspicious by the configuration of the stars.

The circular city of Maṣṣūr lay on the western bank of the Tigris, and soon was far too small to satisfy the needs of the population which poured in from all sides. To the south and north there grew the suburbs of Karkh and Ḥarbiya, intersected by canals bringing water from the Euphrates to the Tigris. The caliph himself must have felt too much shut in by his circular fortress; in 775 he built an outer residence on the Tigris called the "Castle of Eternal Life", i.e. the

Castle of Paradise, an allusion to the Koran. At the same time there rose on the eastern bank a princely palace complex destined for Maḥdī, Maṣṣūr's son and successor. Around this complex, too, new residential districts developed rapidly, and in their midst, as on the western bank, there soon rose up the palaces of the grandees, in particular of the vizier family of the Barmakids. Three floating bridges connected the banks of the Tigris.

This was the Bagdad of Hārūn al-Rashīd. Altogether it must have been an area of at least 30 square miles, and we may safely assume that during the best years more than a million people lived there. Using dried clay tiles for building material, Bagdad probably had the appearance of the Babylonian cities throughout the centuries: a mass of dusty grayish white houses interspersed with the green of palm trees along the intersecting canals and in the palace gardens, and, rising above it, the domes of palaces, most conspicuous among them the "Green Dome" in the round city, with its green glazed tiles. In between a few minarets, not the slender turrets known from later times, but the more massive spiral towers, still a heritage of Babylonian style. One of the writers on Bagdad narrates how once the city was depicted to one of the Byzantine emperors "with its grounds, its market streets, its broad traffic roads, its palaces, its canals, its east side and its west side", and how the emperor was able to indicate one of the palaces thus depicted as the most beautiful. Presumably, however, this is a record concerning a later period, of around 900, when Byzantine embassies frequented the capital of Islam.

The first blow delivered to Bagdad was the siege by Ma'mūn's troops in 813 when he contended with his brother Amīn for the caliphate, as mentioned in the previous paragraph. Nearly all districts suffered heavily from the bombardment with catapults, and the circular city seems never to have completely recovered from its ravages. Ma'mūn himself went to reside in East Bagdad, in the Barmakid palaces. During the time when court and government were moved to Sāmarrā (838-892) the stimulus for its extension or even its upkeep was lacking; in 865 Bagdad was again besieged, when one of the caliphs had taken refuge in the city in order to rid himself of the tyrannical tutelage of the guards.

After the caliphs' return from Sāmarrā the centre of the city moved more and more to the eastern bank. Caliph Mu'taḍid (892-902) started building a new palace complex to the south of East Bagdad along the Tigris, where all his successors were to reside until the end of

the dynasty in 1256. Again new residential districts grew around these palaces, while at the same time the formerly so prosperous districts of West Bagdad dwindled away to straggling suburbs. Finally, an earthquake in 941 occasioned the collapse of the dome of Manṣūr's palace in the circular city; it was never restored. For a long time the old mosque remained in use for the Friday services in West Bagdad, but on the eastern bank no less than three Friday mosques had risen. In a small mosque in the N.E. of present-day Bagdad dating from the 17th century the prayer niche (*mihrāb*) has a back wall which is carved from a single slab of marmor; it is thought that this was the wall of the niche in Manṣūr's original mosque, especially because of the sumptuous decoration whose ornamental patterns do not yet show the stiffness of the later arabesques but rather seem to belong to a transitional period which is linked with the decoration of the Umayyad pleasure palaces of the Mushattā type.

After 945 East Bagdad also became the residence of the rulers of the Persian Būyid dynasty who had drawn Bagdad into their territory. Their presence stimulated building activity and extension, but from this period nothing has been left either. In East Bagdad, however, there still stands a minaret, the highest of the present-day city, which judged by the style of the decoration must date from the time of the Seldjūkid sultans who in 1050 succeeded the Būyids.

Only from the time of caliph Nāṣir (1180-1225) who was again master in his own house, until recently (1917) two monumental city gates had been preserved. One of them, the so-called Talisman gate, preserved an effigy of the caliph in a carved decoration above the entrance. Finally, there still is a madrasa or higher school of religion from the time of the last but one caliph, Mustanṣir (1226-1242), the solidly built premises of which were used as customs godowns in the days of Turkish rule.

All that was lost of ancient monuments in the ever-decaying and ever-rising city of Bagdad has been preserved in the temporary caliph's residence of Sāmarrā, the creation of Mu'taṣim and Mutawakkil. At present Sāmarrā is a small locality situated about 80 miles to the N.W. of Bagdad on the eastern bank of the Tigris. Stretched out over a distance of 20 miles in a zone of well over a mile in width here lies a series of ruins of partly enormous palaces and mosques, and of private houses. Since all activity here occurred within a period of 60 years, and afterwards there never was a settlement of any significance, Sāmarrā through its architecture and its decorations gives us a better

understanding of the courtly mode of life during the earlier times of the caliphate. In addition there are rather accurate reports by some writers on the history and topography of Sāmarrā. However, Sāmarrā is not much more than a historical curiosity. It shows potential conditions which in Bagdad had a more organic growth, and it never became an independent cultural centre. From the beginning measures were taken to prevent the development of a new settlement around the palaces and barracks, but the remains show that here, too, densely populated districts had been built.

The excavations in Sāmarrā took place between 1911 and 1913, and they did not by far extend to all the ruins. The caliph who built most here was Mutawakkil (847-861), whose large palace, situated somewhat to the south of the centre, has not yet been thoroughly investigated. This caliph built still more palaces to the north and the south, and according to the sources spent no less than 204 million dirhams—to be valued at £ 10.000.000—to this end. To the south of the central palace was the great mosque, occupying a space of 280 by 200 yards, and, they say, having room for 100.000 people. The remains of the columns along the side galleries with small marmor pillars inserted in the corners are evidence of great luxury. The walls were adorned on the inside with mosaic and painted stucco, and the windows were provided with stained glass. The minaret, standing detached to the south of the mosque wall, is still there, and with its characteristic shape dominates the surroundings. It is a heavy tower, narrowing upwards, a stairway spiralling along its sides to the top. It is not certain whether this form of construction is merely an imitation of the ancient Babylonian Temple tower, or the product of a never-interrupted tradition. A second, smaller mosque is situated in the northern part of Sāmarrā.

At the southernmost end are the ruins of another palace, which the sources call Balkuwārā. It was constructed by Mutawakkil for Mu'tazz, his son and successor, as appears also from an inscription found on a rafter. This palace was of the same type as the Mushattā palace in the East Jordanian region belonging to the Umayyad period, that is to say, in the shape of a Roman castrum with two main roads laid out crossways. The palace of al-Ukhaidir, the ruins of which are situated on the desert border to the west of the Euphrates and approximately 60 miles to the south of Bagdad, shows the same type, and presumably dates from the 9th century too. As has been said above, the palace in the circular city of Manṣūr may have been con-

structed in a similar way. Balkuwārā, however, is distinguished from those other palaces by its huge dimensions. It occupies a square with sides of 1400 yards. Its S.W. side borders on the Tigris, and on this side, within the larger palace, there is again a smaller complex of a similar structure measuring 510 by 640 yards and surrounded by its own wall, with only one gate, on the N.W. side, for an entrance. The structure of the inner courts and the audience halls, succeeding each other in the middle section from the entrance to the Tigris, can still be clearly recognized. Parts of the decoration on the walls, which consists of a stucco panelling filled up with arabesques and, above it, several types of niches, give us an idea of the luxury prevailing here. Mosaics in glass and mother-of-pearl have come to light here too, as well as fragments of painted teakwood doors and fresco paintings on the walls depicting hunting scenes and dancing girls within a framework of floral patterns. In Balkuwārā we meet with a mass-produced art which in other residences of Sāmarrā is better polished and more richly varied. In Bagdad probably the same style and taste prevailed in the palaces of the great. Research by art historians has succeeded in establishing how occidental and oriental forms of art were united here into a synthesis which was to be of decisive importance for the development of Mohammedan art in subsequent centuries.

Among the pottery found in Sāmarrā—plates, jars and tiles—fragments have been found showing a rich decoration in relief and with painting in glaze, confirming the importance of this stylistically creative period. Here too the earliest specimens of the so-called lustre painting were found, the colours of which have a metallic shine. These replaced the gold and silver ware prohibited by the Koran. Other ceramical products discovered in Sāmarrā, however, stem from East Asia and must have been imported from China; some fragments have the delicate texture of porcelain. Other such objects are again local imitations of this Chinese pottery. These finds are, of course, of great importance because they attest the existence of cultural relations with the China of the T'ang period.

Thus, the excavations in Sāmarrā have yielded a rich harvest of material which can give us an idea of the material culture of the early Abbasid period. In Raḡḡa on the Euphrates too are the remains of the palace which was the favourite haunt of Hārūn al-Rashid. Here, however, much more seems to have been lost, and the findings are by far not as important as those in Sāmarrā. It should be remembered, however, that Sāmarrā was a centre of luxury called in Arab literature,

with a pun, *Surra-man-ra'ā*, i.e. "Whoever sees it rejoices". Nevertheless, we may presume that the pomp and taste of this parvenu-like caliph's residence give an impression of the Bagdad of yore, and in general of the mode of life in other cities which, within as well as outside 'Irāk, were the seats of Abbasid power.

3. *The Lords of the Quill*

"The realm of the heavens and the earth belongeth to Allah", thus it is said in some twenty places in the Koran (see e.g. *Sūra* 85:9), while the first verse of *Sūra* 67, the "*Sūra* of the Kingship", runs: "Blessed be He in whose hand is the kingship; and who over all things hath power". According to the monistic conception of Allah's omnipotence this means pure theocratic rule on earth; the world empire of Islam is a divine kingdom in which Allah's deputy, the caliph, holds absolute sway in the name of Allah.

Only when the worldly power of the caliphs had grown to full maturity in the Umayyad period, and after the office of Allah's deputy had been taken over by a new dynasty which pretended fully to deploy the ordinances of Allah, only then could this conception be held in full consciousness. During the first glorious half century of Abbasid rule the Mohammedan divine kingdom could not but seem gradually to come to its fulfilment. The disintegration of the empire, which commenced soon afterwards, was unable to bring about any change in this ideal conception established once and for all. To the concept of *dār al-Islām*, the territory of Islam, the scholars of the Law opposed the concept of *dār al-ḥarb*, the territory of warfare, destined through the Holy War to be absorbed into the *dār al-Islām*.

In the same ideal fashion the Mohammedan theocratic conception dominated the government structure of the great empire, in that the caliph, theoretically at least, was its unrestricted ruler who, like Allah, could directly interfere in the smallest as well as in the weightiest matters without being held responsible to any person or any group of persons. This is more or less the pattern of all oriental despotism, but it was carried through most rigorously in Islam. In the Sassanid empire, of which the caliphate was in part an historical continuation, the head of the Magi or fire priests had at least constituted a power counterbalancing worldly authority; this dyarchy was rooted in the Zoroastrian dualistic conception of a spiritual authority beside an earthly rule. The caliph, however, combined these two aspects in his person. Though the class of the scholars did in practice gain great

influence, there never was as much as a formal recognition of this influence until modern times. Nor was there any room in the caliph's empire for an ecclesiastical hierarchy as known in the Byzantine empire.

Another consequence of this application of theocracy was the lack of any administrative arrangement of worldly relations. Beside Allah's ordinances there was no room for laws, edicts and decrees. No legislative promulgations on paper or stone of any caliph or other Mohammedan ruler of the earliest centuries have been transmitted. The exegesis of the Law of Allah remained the task of the scholars and insofar as this Law provided no ruling, or was deviated from in practice—this was a rule rather than an exception—, usages and customs came about which very often became tradition but were never regarded as binding rules of law. To a certain extent these usages were recognized as admissible by the scholars of the Law. In government practice, however, this situation led to far-reaching despotism, despotism not solely of the highest authority, but of his deputies alike. Under such circumstances we can hardly speak of a government apparatus. The higher officials were nominated and deposed by the caliph, and they in their turn nominated the officials under their authority. Everything depended to a great extent on their pleasure and whim, but fortunately also on a sense of religious responsibility, be it not always rightly understood.

This government system never offered an opportunity for the growth of autonomous administrative units in cities or in larger districts, as was the case in medieval Europe. Theocracy could not tolerate the existence of more or less self-governing bodies. Wherever such tendencies existed or developed they were suppressed or ignored as a matter of course; this was the case e.g. with tribal organization and later with the guilds. Territorial independence was incompatible with the Mohammedan conception of state authority, and hence a stable feudal relationship between the sovereign and the rulers of provincial territories could never develop. This situation inevitably led to the disintegration of central power within a short time, as soon as military necessity no longer compelled it to continuous intervention and control. Especially in the more distant regions the governors could not but gain a great measure of independence, as their power there quite naturally linked itself with group interests of former times, or when they posed as champions of sectarian groups in Islam.

In the beginning of the Abbasid period the division of the empire still bore the stamp of the successive periods of conquest. This meant

that the territories of the central provinces were comparatively much smaller than those in the periphery. 'Irāk was divided into the provinces of Kūfa and Baṣra. To Baṣra, however, belonged also the relatively unimportant regions of Baḥrain and 'Umān in Arabia. In Arabia, furthermore, were the provinces of Ḥidjāz (together with Yamāma in Central Arabia) and of Yaman. Syria constituted a province of its own, which from of old had been subdivided into smaller military districts (*djund*), Palestine usually being the most independent among them. To the east 'Irāk bordered on the small province of Khūzistān, usually called Ahwāz after its capital; this was ancient Elam or Susiana. More extensive were the provinces of Mesopotamia or Djazīra, to which also belonged Armenia and the Northwest Iranian territory of Azerbaidjān. The province of Mosul likewise included large portions of Eastern Iran, and in the same way the province of Fārs comprised entire Southern Iran. More eastward followed the province of Sind, the Indus river basin conquered after 711. Finally there was in the northeast the extensive territory of Khurāsān to which belonged also the equally extensive regions on the other side of the Oxus. In the western part of the empire Egypt retained its own governorship, but the whole of North Africa, theoretically including Spain, was only one province.

This division, however, remained far from stable; time and again it was altered for more or less accidental reasons, and eventually in the more distant regions sub-governorships were constituted which in their turn developed into independent, and very soon too independent, administrative units.

The importance of the smaller more central provinces was, moreover, to be gauged from the fact that they paid relatively much higher taxes than the more distant territories which were less intensively governed. And the most important function of the central authorities was the collection of taxes in specie or in kind, destined in the first place to defray military expenses. Under the Umayyads the state administration was mainly an institution for the maintenance, by means of fixed allowances, of the Arab warriors stationed in the garrison towns who were not allowed to possess their own land nor in any other way to provide for their own living. This situation had gradually changed because of the absorption of the Arab armies by the inhabitants of the conquered territories, and because of their replacement by other professional soldiers the majority of whom no longer were of Arab descent, such as the Khurāsānian troops of Abū Muslim.

On the other hand, the difference between land tax (*kharāj*) and tithes, which had led to such difficulties in the time of the Umayyads, had practically disappeared; every landowner paid the *kharāj* except when by a special dotation landed property had been ceded to military commanders and high officials.

The Umayyads had led such government affairs more or less personally with the help of "clerks" (*kātib*) and chanceries (*dīwān*). Under the Abbasids, however, the institution came into being that one of the clerks or secretaries gained a dominant position, until eventually as a vizier (*waṣīr*) he would take into his hands the entire management of state affairs. The first to appear in such a function was Khālīd, the son of Barmak. He stemmed from a distinguished Iranian family whose members formerly had been priests of a Buddhist sanctuary in Balkh in Khurāsān. Khālīd himself had embraced Islam, and, having become a partisan of Abū Muslim, had gained in 'Irāq a confidential position as a favourite of the first Abbasid caliphs. Caliph Maṣṣūr still conducted too personal a regime to tolerate an omnipotent administrator of the empire beside him, and under him Khālīd held several governorships. Khālīd's son Yaḥyā, however, (appr. 740-805), who had been entrusted with the education of Hārūn al-Rashīd, became the almighty confidant and vizier of this personally not very significant monarch. He and his sons al-Faḍl and Dja'far are the most important members of the Barmakid family, so well-known through the Arabian Nights. Dja'far was the inseparable favourite companion of Hārūn, and an accomplished courtier, while al-Faḍl held important governorships in Iran. At the same time one of Yaḥyā's brothers, Muḥammad, was grand chamberlain (*ḥādīb*). They were grands seigneurs upon whom extensive properties had been bestowed; their lordly residences were in the northern part of East Baghdad. They are also mentioned as the founders of many mosques and public institutions in the capital as well as in the country.

Not only by their ancestry but also by their function the Barmakids represented an element of Iranian cultural tradition in the heart of the Mohammedan empire. The Sassanids too had an almighty grand vizier who was entrusted with all matters of government. And as in the Sassanid empire, in Islam too there came into prominence with the Barmakids a typical officialdom, the class of the clerks or the "Lords of the Quill" as opposed to the military class, the "Lords of the Scimitar". From of old officialdom was very un-Arab. In the west of the empire it was still preferably carried out by Christians, notwithstanding

measures against it. In the Iranian east the old class of clerks had much sooner embraced Islam, and now it had taken possession of the central government apparatus of the caliph's empire.

It is understandable that opposing forces were active too, having stronger Arab, or rather Western leanings. They accused the Barmakids among other things of secret unbelief. These forces gained a temporary victory in the year 803, when Dja'far was suddenly executed by the caliph's orders, and Yahyā, his father, and his three brothers were imprisoned. This is the dramatic downfall of the Barmakids which made on the historians both of East and West a great impression, even enhanced by melodramatic detail: Dja'far's head was exhibited on one of Bagdad's bridges, and the two halves of his body on the other two.

The vizier succeeding the Barmakids was al-Faḍl ibn al-Rabī', a representative of the rival faction. After Rashīd's death he remained in office under Amīn, the next caliph, and he led the Arab or Western policy which brought Amīn into conflict with his brother Ma'mūn, eventually causing his dethronement and death. Actually, this al-Faḍl was not at all of noble Arab descent. Al-Rabī', his father, was of obscure origin, but under Maṣṣūr he had been a chamberlain (*ḥādīj*) of the caliph and also the much-feared executor of his commands; in this latter rôle he is very prominent in many historical anecdotes.

Thus, chamberlains and viziers were the most influential functionaries of the court and the empire, both of which categories were never sharply distinguished from one another under the caliph's rule. It appeared that members of the same influential families were eligible for both offices. But as the caliphs became less strong personalities, leaving all government matters to the vizier, the latter became the most powerful. From sudden dismissal by the ruler's whim they were safeguarded no more than anybody else, and yet the institution of vizier gave the caliph's empire a salutary continuity and served as an example to the empires founded by later Mohammedan dynasties. The Arab literature of the 10th century includes several "Vizier's books" filled with stories in the form of anecdotes of these popular bearers of state power.

The Mohammedan scholars of the Law on their part attempted to find a formula for the function of vizier in the government. For the bearers of this office they demand approximately the same attributes and aptitudes which are required in the caliph, with the exception of

obligatory descent from the Kuraish tribe. Furthermore they make a distinction between a limited and an unlimited vizierate, thus again conceding to practice. Limited vizierate was the situation occurring when, especially in the beginning, the caliphs still carried on a personal regime. There were times, however, when the vizier was left a free hand by his master, and then he became the only responsible *de facto* leader of government affairs. This administrative omnipotence, however, did not shield him in the least against a sudden fall, as we have seen in the case of the Barmakids. The competition among the newly-risen leading families was too severe. Though the functionary who had fallen into disgrace was not always executed, yet his fall usually meant imprisonment and a close enquiry by his successor into his financial management, followed by his being called to account for the many millions of dirhams unlawfully acquired. If the dismissed vizier was unable to pay these back—and this was mostly the case—then, curiously enough, he often found his rivalling colleagues willing to make up the deficiency. For they in their turn could be almost certain that once they would meet with the same fate and would depend on similar help.

When after the return of the caliphs from Samarra the government came into great financial difficulties owing to the disintegration of the empire, there still were some men of integrity after the criteria of those times, such as the famous 'Alī ibn 'Isā, who again and again were called to the highest dignity to set matters right again with their administrative experience. They often were the ones who actually decided on the choice of a new caliph designate. But all this could not shield them from the saying in the Koran that "Allah exalts whomever He wishes, and humbles whomever He wishes".

The government apparatus with which the vizier carried out his administration consisted of the *dīwāns* or chanceries already known from the Umayyad period and, as indicated by the name, of Iranian origin. The number and the names of these departments often changed. Most important was the *dīwān al-keharāj* for the administration and control of revenue from land tax; this administration, of course, gave ample opportunity for unfaithfulness in handling the enormous sums, of which the viziers could so easily be accused. This chancery, however, occupied itself only directly with the revenue from land tax in 'Irāq, and for the rest controlled the income from other provinces. A separate chancery managed the estate of the crown, and yet another the administration of the caliph's household (the "*dīwān* of the clients and slaves"). Sometimes there also were audit departments for control.

A kind of cabinet chancery looked after the registration and expedition of all written commands issuing from the sovereign; they had to be provided with the caliph's seal and to comply with all the requisites of protocol for such documents. Usually this office came directly under the vizier, since it was the centre of important cabinet affairs dealing with the general policy of the empire.

A department of war was not lacking either; it was called "chancery of the troops" and its main task was to regulate the pay of the army.

The ever-increasing number of officials in these government offices constituted the class of "Lords of the Quill". Under the first Abbasids they were more and more recruited from among islamized Iranians, and of caliph Ma'mūn it is even told that he wished to appoint exclusively Shī'ite Iranians as officials, but that he finally was dissuaded from this plan. Since the previous dynasty Christians had also been numerous among the official class, notwithstanding countermeasures by some caliphs. Under the Abbasids too Christians could still remain in important posts, but eventually the officials constituted a homogeneous class of good Mohammedan outlook, though often very sensitive to sectarian ideas. As the bureaucratization of the government apparatus advanced, powerful officials' families obtained great influence at the court and in state affairs; they provided the viziers too. Together with the scholars they constituted the intellectual class in the new culture of Islam; they often received the same training and contributed to the newly arising classical literature.

A similar development as in the central government in Bagdad was to be seen in the administrative structure of the provinces. The governors no longer were army commanders in the first place, as in the Umayyad period, but they became in their territory a kind of second class viziers, comparable to the vizier in Bagdad in his function as governor of the central region. The vizier, however, possessed the means by which to keep a constant check on the governors' management and behaviour. This included a political information service executed by special officials stationed in important provincial cities. They bore the name of *ṣāhib al-barīd*, often translated by "postmaster", because they were in touch with the capital by means of regular courier services and were also in charge of forwarding and receiving official dispatches. They could report behind the governor's back on any event in the province. In this way the central government could remain informed on any symptom indicating possible disloyalty of the governor. There is the famous story about the postmaster

in Nishāpūr who in the year 820 noticed that Ṭāhir ibn Ḥusain, the mighty governor of Khurāsān, in his Friday sermon (*khutba*) omitted the name of Ma'mūn, the ruling caliph; he correctly inferred from this that Ṭāhir had rebellious intentions. He sent a messenger to Bagdad at once, and escaped certain death only because the disloyal governor himself died almost immediately afterwards. This courier and espionage service was centralized in Bagdad in a separate chancery, the *dīwān al-barīd*.

The powers held by the governors were very different. With them as with the viziers, there was a distinction between limited and unlimited governorship. Limited governorship rather belongs to the period of great power of the central government, and more particularly in the provinces close to 'Irāk. In those regions it was explicitly stated at the time of his nomination whether the functionary would have the right to lead the Friday services, a function otherwise carried out by a scholar of the Law. The collection of taxes and their remission was the task of an independent official who was in direct touch with the *dīwān al-kharāj* in the capital. The administration of justice also did not come under his direct supervision; it was carried out by *qādis* appointed by the central authorities. Thus, he was assigned more particularly the military defence of his province and various administrative matters, such as the supervision of the observance of good public behaviour, the control of which was exerted in particular by the marketmasters (*muḥtasib*); these duties included finding new husbands for widowed ladies. Furthermore, the governor's tasks included the annual equipment of a pilgrimage caravan from his province.

To a certain extent the duties of these government representatives also included the carrying out and maintenance of public works. In general, however, this was rather a private affair, in so far as the building of mosques, caravanserais, bridges, bath-houses, fountains etc. was left to the initiative of wealthy and influential persons, first of all the caliphs and members of their house and also high officials and governors; soon rich merchants also took care of the execution of such works. Inscriptions ensured the perpetuation of the founder's name, and the dating. From the early Abbasid period, however, practically no such works have been preserved; but the tradition remained established for all subsequent centuries. Yet there were also general interests necessitating control as well as financial cooperation by the authorities. These concerned mainly irrigation works, the dig-

ging of canals and the building and preservation of dikes, especially in the basins of the big rivers such as the Euphrates, the Tigris, the Nile and the Oxus or Djaiḥūn, and in other agrarian regions which were dependent upon a carefully measured out water supply such as Yaman and Khurāsān. Much was left, of course, to the care of the local inhabitants who from of old had formed communities of interest. And yet, everything connected with irrigation and agriculture was so important that even here the government realized that, for the sake of general welfare, it could not abstain from control and, where necessary, from financial support.

The mighty governors who rose in the 9th century had practically unlimited powers. Their power could be gauged especially from the fact that they could use the taxes collected in their own territory for their own administrative expenses, without any obligation to account for these to the authorities in the capital. Under the Umayyads well-known governors of ʿIrāk, such as Ḥadjdjādī, had had more or less the same position, but at that time there was no danger yet of disintegration of the empire. The situation became different when the central power of the Abbasids began to weaken. A serious symptom of this had been that Hārūn al-Rashīd as heir presumptive had been given the rulership over the entire western part of the empire. Here, however, the idea had rather been to provide a member of the ruling house with a lucrative position, for the actual pattern of government remained practically unchanged. When, on the other hand, successful military commanders arose who had to be recognized by the caliphs as governors, the picture changed; the governors themselves founded shorter or longer-lived dynasties which, though nominally remaining loyal to the caliph, did greatly alter the general structure of the empire. Best known among these governors' dynasties were the Aghlabids (800-909) in North Africa, the Ṭāhirids (810-873), thus called after governor Ṭāhir mentioned above, in Khurāsān, and the Ṭulūnids (868-905) in Egypt.

4. *The "Lords of the Scimitar".*

The caliph's title "Amīr al-Mu'minīn", Commander of the Faithful—which title, as tradition has it, was first carried by ʿUmar I—expresses the idea of the head of the Mohammedan community as their supreme commander. In ancient Arabia the *amīr* was the commander of military operations, and Mohammed too had acted several times as *amīr* or had appointed sub-commanders for the expeditions launched by

him. The warriors under their command were Arabs fighting in tribal formation.

One should not imagine the earliest Arab conquests to be completely disorderly raids on the part of hordes emerging from the desert. Conflicts between small groups, usually no more than robbers' raids, may have been of this nature. Such tribal raids constitute the background of bedouin self-glorification in ancient Arab poetry with its exact inventory of the Bedouins' implements of war. But even here there are traces of foreign influence; the swords most sought after are Indian sabres, and trade undoubtedly made known many other foreign types of arms from the Byzantine empire and from Persia. From descriptions of the bigger battles, however, which already occurred under Mohammed, there clearly transpires a knowledge of certain military tactics, as applied e.g. by Khālid in the battle of Uḥud. The ancient Arab battle formation consisted of long lines: a central one flanked by two wings, with in addition a vanguard and a rearguard. At the back of the army a fortification was often built by piling up the baggage, and in an emergency the cavalry could withdraw there. These tactics possibly go back to Roman example. It is a striking fact that already in the earliest times various military concepts such as "army" or "fortress" are mainly of Roman-Byzantine origin. At an early stage, moreover, larger implements of war became known, such as the *ballistae* and catapults with which Mecca was bombarded in 692. Marwān II, the last Umayyad caliph, seems to have been an expert in military affairs; the introduction of a new battle-array is ascribed to him: it consisted of a number of smaller and more compact infantry units which were more mobile and could enter the battle in successive stages.

Ever since the beginning of Islam war on the unbelievers had been valued highest; this is what the Koran calls the "exertion on the Way of Allah" or Holy War (*djihād*). The characteristic Arabic word *ghazwa* was also applied to it; this word actually means a raid into enemy territory. Mohammed's *ghazwas* constituted the most important part of his biography. The participants were called *ghāzī*, which term came to indicate warriors for the faith throughout Mohammedan history. Personalities of the period of conquest who remained most popular were the commanders fighting against the unbelievers, such as Khālid ibn al-Walid, the "Sword of Allah", 'Uḡba ibn Nāfi', the first conqueror of North Africa, and Kūtaiba ibn Muslim who led his troops over the Oxus.

The great garrison cities had also been founded for the sake of the Holy War: Baṣra, Kūfa, Fuṣṭāṭ, and soon also Marw in Khurāsān and Kairawān in Tunisia. Quite soon, however, starting with the uprising under 'Uthmān, the troops stationed there were also drawn into the internal conflicts of Islam, the "temptations", and under the Umayyads the situation developed in such a way that the army under the control of the central authorities had to go to battle mainly against the forces opposing those authorities. The old idealistic pattern of a class comprising all able-bodied Arab males, which was continually subsidized from the coffers of the state, could not be maintained under such circumstances. The Umayyads could place more trust in the troops from Syria recruited by themselves, to whom they moreover issued extra pay in excess of the annual dotation. Furthermore, as conquest went at a slower pace there was no longer such a rich flow of war booty, and so the general dotation could no longer be maintained on the same level. At the same time the Arab troops, who had been uprooted from their own environment, showed a growing tendency to behave as citizens of the conquered territories. Their warlike spirit decreased, and the Arabs ceased to be a military class privileged on account of their nationality. In the newly developing Mohammedan society soldiery became a profession among others, carried out by Arabs and non-Arabs alike. Only on the outer fringes of the "territory of Islam"—in Central Asia where the Turks had to be faced, in Asia Minor where vigilance had to be exerted against Byzantine invasions, and likewise in North Africa and Spain—the tradition of the early *ghāzīs* spurred on by religious fervour held out.

As will be readily understood, the naval expeditions against Byzantium which started under Mu'āwiya necessitated the use of a large proportion of non-Arabs; these expeditions were mainly launched from Alexandria, and genuine Arabs did not readily take to the sea. A contemporary poem depicts in a somewhat comical fashion the despair of an Arab warrior who is being flung from one side of the ship to the other and sees the Syrian coast disappear in the distance. Hence, naval wars in Islam remained confined to the south coast of the Mediterranean, Alexandria and Tunis being the great naval centres. The fleets of the local dynasties which had risen here during the 9th and 10th century were manned with cosmopolitan sailors living along the coast, and for centuries they were able under Mohammedan command to terrorize the islands and shores of Christian

Europe. As to the southeastern part of the empire, the Persian Gulf and the coast of Arabia, neither in the period of the caliphs nor later did a navy develop there, since apart from the usual pirates no significant opponents were to be feared.

The generals of the troops were the obvious persons to be appointed governors of the provinces where these troops were stationed. They often relied also on certain tribal groups from which they themselves had issued. As long as the armed forces consisted almost exclusively of Arabs, the Umayyads did not yet have to fear the tendencies of these leaders towards independence; the famous commander-governors of this period, such as Ḥadjdjādī in 'Irāk, al-Muhallab (d. 702) in Khurāsān and Mūsā ibn Nuṣair in North Africa, were all loyal servants of the dynasty. Their powers were often limited exclusively to military affairs.

The Abbasids, however, had been indebted for their victory to the Khurāsānian troops of Abū Muslim. With this event an important non-Arab military power consisting entirely of islamized Iranians came into prominence. They formed the guards of the new dynasty, and even had to protect it from possible attacks on the part of the Arabs. Besides this, there still existed large Arab contingents divided into Northern and Southern Arabs. Apart from these regular and paid troops large groups of volunteers used to join every military expedition. The regular troops had a cadre probably inspired on the Roman model; the commander of a division of ten thousand men bore the title of *amīr*; there were separate regiments of infantry and of cavalry, of special archers and of fire-throwers (throwing naphtha). The caliphs' bodyguard was distinguished by its rich apparel, and for the other troops too there were prescribed uniforms. This was true for the caliph's entourage in Bagdad, but the governors did likewise. The paid troops recruited by them were a much more tractable instrument in their hands than the contingents of the large national army of Arab tribes which under the Umayyads undertook the military defence of Islam. Hence the ever-increasing danger of a commander-governor declaring himself independent from the caliph. Since the beginning of the Abbasid period every military commander of some stature necessarily roused suspicion: the mighty Abū Muslim had been eliminated by Mansūr, and the "postmaster" system described in the preceding paragraph was an indispensable, though insufficient, measure to ensure the unity of the empire.

The first Abbasid caliphs including Mu'taṣim still took part

personally in their military expeditions: nearly all of them were killed or died in battle, and this led to the popular belief that no Abbasid was destined to be buried in Bagdad. Most of their wars were directed against the Byzantines in the northwest. In the border region to the north of Antioch and Aleppo a number of strong border fortifications had been established, occupied by permanent well-paid and well-equipped garrisons. Under Rashīd this district, extending from Cilicia to Melitene (Malatya), was made a separate province called al-ʿAwāṣim ("the border fortifications"), and the troops stationed here still resembled more or less the *ghāzī*, the former ideal Muslim warrior.

The great interest displayed by the caliphs in this border region was, of course, bound up with their particular care of the defence of the geographic centre of their own power which was more exposed here than anywhere else. In the same way the frontier lines against the Turks in Transoxania, against the Franks in Northern Spain, and a number of smaller border districts in the east, west and south, constituted independent defence zones where similar conditions prevailed and where the governors held undisputed sway.

With the rise of the vizierate in Bagdad all military matters, including the "lords of the scimitar", had also become involved in the administration, and in a way they had become subordinated to the "lords of the quill". This was in line with the comparatively stable and peaceful conditions prevalent in ʿIrāk since the coming of the Abbasids. An unruly soldiery could not be tolerated in populous Bagdad and had to be kept within bounds. Eventually this became difficult because the military household of the caliphs since Muʿtasim had been enlarged with yet another corps, consisting of "Turks", i.e. inhabitants of the extreme borderland of Turkestan and Ferghana. People of these regions had been imported into Bagdad in great numbers as prisoners and slaves, and partly because of their fierce and savage nature, partly on account of their complete dependence, they made very suitable bodyguard troops for the caliph. In the same manner another new corps came into being soon afterwards, consisting of slaves from the Berber country and from the Sudan. But the Turks especially were true representatives of such blindly obedient bodyguards. Their savage and riotous behaviour caused so much discontent in the capital that Muʿtasim had to yield to the pressure of public opinion and installed himself in 836 in his newly built residence in Sāmarrā. In all probability we may consider this event a victory of

the orderly and bureaucratic element in the new Mohammedan society.

It was, however, only a relative victory. The newly created situation could only be beneficial as long as the caliph himself was able to maintain his authority over his troops and their commanders. Mu'tasim still had his military apparatus well in hand; one of his best known commanders was Afshin, the last descendant of a royal family in West Turkestan, who won glorious victories for him over the Byzantines in Asia Minor and on the rebellious sect of the Khurramites in Northern Persia, but in 841, after a sensational process in which he was accused of defection, he was imprisoned and starved to death. Under caliph Mutawakkil there was an equilibrium of power between the Arab, the Khurāsānian and the Turkish contingents whose rivalry, still harmless, is depicted in literary form by the writer Djāhīz. Towards the end of Mutawakkil's rule, however, certain Turkish commanders gained the upper hand. One of them, Bughā the Younger, took part in a conspiracy resulting in the caliph's death, and together with another Turkish commander virtually held the highest power for some time. Caliph Musta'in fled from these pretorians from Sāmarrā to Bagdad, but they proclaimed another Abbasid, Mu'tazz, as caliph, who eventually succeeded in getting rid of his would-be protectors (868).

In the period now following, the military forces at the disposal of the caliphate were more and more occupied with defensive tasks, as against the dangerous slaves' uprising of the Zandj in Southern 'Irāk, against Khāridjite and Shi'ite insurgents, and also against the Byzantines pressing forward in Cilicia. At the same time the virtual independence of many governors in the east and west began to be dangerous to the core of Islam territory. A number of able caliphs managed to keep their troops under discipline and had with their help the territorial integrity of this central region respected; there were even some victories over Byzantium. In 892 the caliphs returned to Bagdad where government power had been centralized again, and whose inhabitants fully appreciated the necessity of military protection.

Times had changed, too. While on the one hand a good military organization became more and more indispensable, the diminishing revenues made it increasingly difficult for the government to provide adequate pay for its troops. In vain the viziers of the weak caliph Muḩtadir used every means to make up the deficit. They even went so far as to give large stretches of territory in fief to some amīrs in order to pay their troops with the proceeds. This happened mainly

to Iranian districts and provinces, insofar as the caliph still possessed authority over them, and it inevitably hastened the process of disintegration. The actual power came more and more into the hands of the generals, mostly Turks.

Towards the end of Muḩtadir's rule a military regime was founded that completely eclipsed the caliph. Actual authority came into the hands of the eunuch Mu'nis al-Muḩaffar who had rendered Muḩtadir important services by defending, in the year 917, Bagdad against the sectarian Karmaṩians. As dictator he was given the title of *amīr al-umarā'*, amīr of amīrs, around 925, and in that capacity he took over supreme leadership. At his command the caliph was killed, and several successors to Mu'nis treated the Abbasids at will, enthroning them and again deposing them, robbing them of their eyesight and delivering them to dire misery. Under caliph Rādī (934-940) the name of Ibn Rā'ik, the *amīr al-umarā'*, was mentioned together with the name of the caliph in the Friday sermon.

With the occupation of Bagdad by the Iranian Būyids in 945 this last phase of military authority over the empire came to an end, but not the caliphate itself. It is typical of the fixed pattern into which Islam as a culture had moulded itself that even in periods of worst decay of the caliphate no commander of praetorians could think of assuming supreme authority also in name, as in the Roman Empire. The army always remained an instrument in the hands of the "amīr of the faithful" for the sake of gaining victory for Allah's cause on earth, no matter how relations between the caliph and his commanders had developed in actual fact.

5. *The New Society*

When the tensions of the struggle for supreme power had abated, the road was prepared for a new equilibrium of social forces under the regulating authority of Islam. In respect of the Umayyad period we still can speak of a new mode of life only, but now it had become an all-inclusive way of life. The social transformation accompanying this phenomenon—it would be too much to call it a revolution—was not the outcome of a noticeable transformation in the technical mastery of nature stimulating changes in the traffic system or the production process, but it had been brought about by the device by which a new popular element in provincial Arabia had risen to conquer: the device of human society as subordinate to Allah's will and of preparation for the "realm of life hereafter".

Worldly authority as represented by the caliph was a reflection of Allah's power on earth, and because of this could develop into a despotism at least as absolute as in former Oriental empires. This seems paradoxical considering the democratic spirit of Islam. In Islam, however, the existence of autonomous sub-groups within the great Muslim community is unknown, because the economic and social pattern of Arabia did not foster such knowledge. But it was the same in the conquered territories. The rise of autonomous sub-groups, e.g. tribes, provinces or city communities, had only been possible if those groups had succeeded in becoming closed economic entities. However, the technical means were lacking to make such groups independent by means of accumulating common property; monetary traffic and a credit system had not yet sufficiently developed. During the caliphate too money had been comparatively scarce, and credit transactions, which came in vogue in wholesale trade and in which the government also took part, never went beyond individual obligations. The only form of communal property known in Islam were the pious foundations which withdrew real estate from trade, and domanial estate which was considered the property of the caliph. He could cede this estate to his grandees as fiefs or apanages, but he always had the power to withdraw such favours at any time. And even normal private property, movable or immovable, was after all a gift of Allah which could be as it were disposed of by his locum tenens.

The pious foundations (*wakf*) to a certain extent constituted capital property mainly to the benefit of the scholars, but they remained uncoordinated and were under strict government control. Because they withdrew much property from normal traffic they brought about a great rigidity in the laws concerning property. *Wakf* regulations often were also valid for the instruments and tools of the artisans' corporations, and here too they had a hampering effect.

In consequence the government was the only social power capable of accumulating and dividing worldly goods at its own discretion. Wealth could only exist by its grace. Because of this, only the big merchants, whose caravans and merchant ships moved in many countries, were able to evade the jealous eye of the authorities. Apart from this the device was: one for all and all for one. Any existing attempt at forming social corporations, such as the guilds or religious societies, or as the mystical brotherhoods, was eyed with suspicion. The actual existence of an economically independent unit meant an immediate end to the unity of the empire.

One trait of the theocratic way of life is the withdrawal of public manifestations and organizations excepting gatherings in the mosque for the communal *ṣalāt*. Everything connected with family life, with intercourse between both sexes, and with the relation between parents and children, is mainly carried on within the walls of houses and palaces. This causes the disappearance of a good deal of social morals from public interest. Insofar as morals touch on public life, such as the prohibition of theft and of prostitution, they are governed by Allah's Law, and such offences are discussed in works on moral tenets, but for the rest the treatises of the scholars do not contain ethical subjects.

The new society developed especially in the cities founded by Arab conquerors or provided with a large occupation force. During the Umayyad period the Arab commanders and their fellow-tribesmen had constituted a privileged ruling class there. The Umayyad policy had attempted to preserve them as warriors at any cost and to prevent them from attachment to the soil by means of acquisition of land. This policy had broken down because the newly converted non-Arabs appealed with ever-increasing insistence to the Islamic doctrine of equality of all Muslims with the aim of obtaining an equally privileged position. In the early days many such people when embracing Islam had joined an Arab tribe as clients (*mawlās*), but gradually this usage was no longer observed. On the other hand the *mawlās* themselves began to join the large Muslim groups fighting each other on politico-religious grounds. We have seen already how in 'Irāk the Khāridjites and Shī'ites were for the larger part recruited among new converts, and how the Abbasids too owed their victory to the cooperation of these elements. Furthermore, the Arabs too, insofar as they were separated from their own tribes in the mother country, had been unable to maintain their racial purity and a genuine tribal consciousness. Genealogical pride in Arab descent remained a factor of social distinction, but the original aim of genealogical procreation, the maintenance of the tribe, had lost its significance. Islam, moreover, discouraged paying attention to the ancestry of the mother; contrary to ancient conceptions, the child of a slave woman belonging to the father was free and completely equal with the other children. Even among the Abbasid caliphs there were some who, like Ma'mūn, had a slave woman as their mother.

Thus there gradually emerged an ever-increasing Muslim population group which had sprung from Arabs and non-Arabs. No longer was this group differentiated according to descent, but what mattered

was the social position which its members had come to occupy and which was usually retained by the succeeding generations of the family. The only groups entitled to the claim of nobility were the descendants of the Prophet through 'Alī, and also the Abbasids and in general they who belonged to a Qurayshite family such as the Umayyads.

Beside this steadily growing group there were the Possessors of the Scriptures and others considered to belong to the same class, i.e. the Christians, the Jews, the Zoroastrians or Madjūs (Magi) and other smaller groups. The Zoroastrians still constituted a large part of the population of the Iranian countries where they retained their priests and fire temples. In 'Irāk, even under Sassanid rule, they had never been very numerous, and during the period of Arab rule practically all traces of them and their worship disappeared there. Among the higher classes in the cities in Persia too they were no longer prominent. And though the higher classes in the cities of 'Irāk were mainly drawn from immigrant or resident Iranian families, they had outwardly become islamized. Among them religious notions continued to exist — mainly under the influence of Manichaeism —, which rendered them highly suspect in the eyes of the Mohammedan scholars. They were called dualists or freethinkers (*ẓindīk*), and owing to the libertinism ascribed to them they were subject to persecutions. In the beginning of the Abbasid period there still existed among them a strong literary tradition by which they enriched the developing Arab literature.

Much more general was the spread of Christianity throughout the empire. The Christians had retained their ecclesiastical organizations, and everywhere their monasteries and churches remained for a long time the centres for the diffusion of Christian-Hellenistic culture which in many ways rendered constructive contributions to the Mohammedan outlook on life. In 'Irāk and Persia since the Sassanid period the Nestorians had had the greatest spread; they enjoyed the same privileges under the Abbasids as granted them by the Sassanids. The Nestorian patriarch or *katholikos* was considered by the caliphs to be the head of all Oriental Christendom; he was permitted to reside in Baghdad. At first he seems to have resided in West Baghdad, but afterwards the patriarchate was in the northern part of East Baghdad. In this section there was a big church with a monastery, surrounded by the district of the Christians which was called Dār al-Rūm. Rūm actually means Romans, but that was the name which the Mohammedans gave to the Byzantines and by which they also indica-

ted all Oriental Christians. In Bagdad there were also a good many other Christian churches and monasteries. The Jacobites too were represented, but they were not trusted by the Mohammedan authorities because they were suspected to sympathize with the Byzantine empire. For this reason the Jacobite patriarch was not allowed to stay in Bagdad; he remained in Antioch.

The formerly Christian Arab tribes on the Mesopotamian border had soon, though not without a struggle, exchanged their Christianity for Islam. On the other hand a large part of the population of 'Irāk, Mesopotamia and Syria had remained Christian; these Christians preserved for a long time their Aramaic dialects. Similarly, the majority of the Copts in Egypt still clung to their religion and their language. The Copts were the only Christians to rebel as a group against Mohammedan rule; yet their rebellions seem to have been occasioned by financial rather than religious oppression. They started already under the Umayyads and did not end until their suppression by the energetic measures of Ma'mūn who in 830 came to Egypt in person. While in the rest of North Africa Christianity in the coastal regions disappeared rather soon, the Christians of Spain were always ready to fight and to witness to their faith. Everything tends to show that Eastern Christendom on whose soil Islam had largely grown, and whose culture was in the process of being integrated into Mohammedan culture, had little difficulty in adapting itself to the Islamic social order. During these centuries the attitude of the authorities generally remained one of tolerance. Now and then there were attempts at compulsory conversion, and in several places churches were taken from the Christians, sometimes with the object of altering them into mosques. From time to time decrees were issued obliging Christians to distinguish themselves from the Muslim population by their clothing, usually by wearing a belt or yellow clothes. The first caliph said to have issued such decrees was the Umayyad caliph 'Umar II; later they were made more severe by Rashīd and Mutawakkil. The real reason for these restrictions was probably jealousy of their cultural superiority, for since the conquests began the Christians had been indispensable in the administration; under the Umayyads and the first Abbasids they fulfilled high government offices, and attempts to exclude them from office, as undertaken already by 'Umar II, were hitherto doomed to failure. Only gradually the Muslims became capable of adequately fulfilling their posts, thus enabling caliph Muḩtadir to prohibit the Christians to practise any public profession other than that of physician

or of moneychanger; at the same time they also remained traders and businessmen. Fanatical hatred of Christians, however, did not become a phenomenon until later ages.

The Jews, perhaps even more than the Christians exposed to the contempt of the Muslims, had a similar social position. The only difference was that they had no representatives among the indigenous population; even Jewish tribes as in Mohammed's time were no more heard of. The Jews too had preserved their religious organization under the Rēsh Gālūtha, the exiliarch, who resided in Bagdad; the decrees concerning prescribed clothing were also valid for them. They too remained for a long time the superiors of the Muslims in cultural respect; their rabbis gave information to the Mohammedan scholars concerning former generations and their prophets, even more than the Christian monks did. Furthermore, the Jews too particularly functioned as physicians and moneychangers.

According to Mohammedan Law these Possessors of the Scriptures are called *dhimmīs*, i.e. people who live with the Muslims under treaty conditions (*dhimma*). In the books concerning jurisprudence these treaty conditions are worked out in accordance with the usage which had become established in the middle of the 8th century. Their right to profess their faith is expressly recognized. In exchange they have to pay poll tax (*djizya*) which varies according to their means, while for their landed property they are obliged to pay land tax. In practice, however, payment of land tax (*kharāj*) had remained obligatory also for those who had embraced Islam and for Muslims who had acquired property from *dhimmīs*. For the rest their competence as witnesses before a Mohammedan judge was restricted. The authorities, however, were not concerned with their internal lawsuits; these were left to the jurisdiction of their own religious community.

Next to this horizontal social pattern we must look at the vertical social structure.

During the Abbasid period the nomadic and half-nomadic Arabs, who had gained such prominence by their conquests, sank back to the condition of a potentially disturbing element of the population generally kept in check by the new social order. They came to be on the same level with similar groups such as the Kurds in Iran and the Berbers in North Africa. Yet the large-scale politico-religious movements repeatedly succeeded in securing the cooperation of these steppe and mountain dwellers, as we shall see later.

These elements as well as the original agrarian population still

preserved many pre-Islamic institutions and traditions; as said already, the earlier religions, Christianity and Mazdeism, remained for centuries, and in some regions have continued to this day. In the Iranian countries and in Mesopotamia the social leaders of the countryside were the gentry, called with a Persian word *dibkân*. The *dibkâns* were the typical representatives of ancient national tradition, and they rendered their services to the new authorities as tax collectors, to the benefit of their influence and prosperity. With their gradual conversion to Islam, however, they lost their patriarchal function, and the villagers were left defenceless against the tax demands of the treasury and its organs.

It was in the cities that the new Mohammedan way of life asserted itself strongest. Centered around the court of the caliphs and around their governors and other grandees a life of luxury sprang up providing employment for thousands. Closely bound up with these centres were also the guards and the other troops permanently kept at their stations. Next, there was the very influential class of scholars who often drew large incomes and could afford to live in luxury. Among the traders and shopkeepers the wealthy merchants with their far-reaching connections had a special position. The succeeding paragraphs will deal with these higher classes.

For reasons mentioned earlier, a civic sense of some sort and proper city authorities could not possibly develop in the cities; the central authorities and their executors were the only ones in power. These conditions left a marked imprint on the city population which made a living from local trade and industry. Its activities were concentrated in the bazar districts so typical of Mohammedan cities. As it was impossible for these enterprises to expand by accretion of capital, competition was reduced to a minimum, and because of this traders in the same products and artisans plying the same trade were always concentrated in one area of the bazar. The various groups united in guilds, as in medieval Europe, though this meant a weakening in economic respect. Actually, however, the formation of guilds was an un-Muslim institution which was no doubt the continuation of pre-Islamic traditions. The earliest traces of guilds in Mohammedan cities are to be found in the 9th century, but this social pattern was presumably pre-Mohammedan. The guild members were subject to strict rules which to them had a religious quality; many guilds had chosen patron saints for themselves from among former prophets or pious "companions" of Mohammed. Since these

corporations always contained an element of independence which did not fit in with Mohammedan society, they were a hotbed of sectarian propaganda which was always directed against the ruling political power. Thus, the guilds in 'Irāk had since the 9th century been strongly influenced by the Shī'ite movement of the Karmatians. The authorities, however, exerted a strict supervision on the activities in bazars by means of the market masters or *muhtasib*; the authority of the *muhtasib* was even recognized by Mohammedan Law, and his watchpost, at the same time a court, was a fixed centre in every bazar. The actual trade centre of the bazar was the *kaisariya*, a covered hall where especially the textile traders were to be found and which could also serve as a public storage place. Among the artisans, moreover, there existed from early times the Mohammedan institution of *habs* or *wakf* whereby tools and implements of a certain trade were declared property in dead hand; this laid all sorts of restrictions upon those who used them. It strengthened the non-capitalist character of this production process as well as the dependence of the artisans' class on the authorities.

There also were Christian and Jewish guilds, mainly of physicians and moneychangers. So much was the profession of physician reserved for these Possessors of Scriptures, that Mohammedan physicians were complaining of it.

Slaves were an indispensable supplement to this society. Since the enslavement of Muslims had been prohibited by Islam, only those were slaves who were imported from non-Mohammedan countries or who had been born of slaves. The slave trade flourished. The worker slaves and part of the eunuchs in the palaces of the great were negroes from East and Central Africa. They were also used as labourers on the large estates and plantations. The slaves, working in Southern 'Irāk on large-scale land reclamations and eking out a miserable living there in labour camps, have become known through a typically social mass-uprising directed against the government as representative of the interests of the big landowners. Raging from 868 to 883 this rebellious movement too was religiously tinged because its leaders were descendants of 'Alī, who pretended to the throne. They were even supported by Arab tribes.

Slaves from Christian countries, especially from the Byzantine Empire and the Slav countries, were destined for higher functions. The men usually were meant to serve as white eunuchs. But the most precious ware of the slave traders were white slave girls. Many of them

were carefully trained and instructed in singing and music, and they fetched fantastic prices. In Bagdad the traders maintained establishments where the *jeunesse dorée* could have intercourse with the slave girls for sale and could develop liaisons which in their turn would lead to advantageous sales contracts. Since Islam granted equal rights to children born of slave women and of free women—a number of caliphs even had slave mothers, as we have seen above—the slave trade furthered a mixture of races among the Mohammedan population.

Domestic slaves generally had a tolerable life, in accordance with Mohammedan custom which prescribed good treatment of slaves. Granting slaves their freedom was considered a meritorious act, while the freed slaves in their turn remained as clients bound to their former masters by certain reciprocal obligations. Their descendants, of course, having been born free, again strengthened the ranks of the large Muslim middle class.

6. *The Produce of the Earth*

Among the "signs" to which the Koran points again and again in order to bring Mohammed's fellow-countrymen to faith in the Creator the produce of the earth occupies an important position: "And We have produced vegetation of every kind, and from it have We produced green shoots, from which We produce close-packed grain, and palm-trees from the spathes of which come down-hanging bunches of dates, and gardens of vines and olives and pomegranates like and unlike; look at its bearing and ripening when it produces fruit" (Sūra 6:99). And elsewhere it says: "Allah hath appointed for you from your houses a rest, and from the skins of the cattle He hath appointed for you houses, which are light for you on the day ye strike them and the day ye set them up, and from their wools and their furs and their hair, furnishings and comfort for a season" (Sūra 16:82).

If this admonition already impressed the inhabitants of the meagre soil of Arabia, how infinitely much more so after the Muslims had obtained mastery over vast territories whose productive possibilities, cultivated for centuries, far surpassed the resources of Arabia.

Mohammedan society had accepted this material heritage of former civilizations as a self-evident blessing of Allah in order to manage it in its own way. For this it could in many respects find a link with conditions prevalent already in ancient Arabia, in this sense that the territories in the east and west which had come under its rule were all marked by deserts and steppes intersected by larger or

smaller regions with a fertile soil and a rich vegetation. These intersections were partly well-irrigated river basins, such as the Euphrates and the Tigris, the Nile, the Oxus and other rivers in Eastern Iran, and partly thickly populated coastal regions, such as Syria and parts of North Africa. It is true that they presented geographical traits unknown in the Arabian peninsula. But on the Iranian Plateau as well as in the Mesopotamian-Syrian plains, on the Sahara border as well as on the loess soil of Turkestan, the most characteristic feature was the isolated position of cities and villages surrounded by cultivation, just as in Arabia, between which traffic with camel caravans was the most marked phenomenon.

Granting local differences, this situation caused a great uniformity in production, breeding of camels, sheep, goats, horses and donkeys often occupying a more important position than agriculture. Without straining their former pattern of life Arab tribes could settle far into Eastern Iran and in North African regions, and thus they also contributed to the economic amalgamation accompanying the growth of Mohammedan culture. Under these influences, too, cattle breeding, which before the coming of Islam had been prevalent in 'Irāk and parts of Iran, gradually decreased; at the same time a marked aversion came about against eating beef, to the benefit especially of mutton. Pig breeding disappeared as a consequence of the Koranic prohibition of pork. On the other hand under the Umayyads buffaloes were imported from the Indus region into marshy 'Irāk and also into Syria, from where in a later period this quadruped became known in Southern Europe. Because of the need created by increasing traffic between the countries of the caliphate camel breeding too became very prominent; the "ship of the desert" made its appearance even in Spain and on the borders of India, and through cross-breeding of two-humped camels from Bactria in Northeastern Iran and one-humped camels from Arabia excellent race-camels were bred. As to horse-breeding, during the following centuries too Arabia remained ahead in producing the noblest breeds.

With the development of agriculture and horticulture in the Mohammedan countries we see a nivellating tendency between the various regions similar to that in animal husbandry, although certain regions remained known for their particular local products, such as Southern Arabia for its aromatics, Southern Persia for its cultivation of roses, etc. The principal crops were, as in Europe, wheat and barley. Their cultivation nearly everywhere necessitated careful irrigation. Because

of this, in the large river valleys and even more in the arid regions of Iran and Arabia water conservancy often was a communal matter in which the government had to intervene; even Mohammedan law treats the subject of water distribution, laying down as an established rule that water cannot be private property and hence cannot be bought or sold. In some regions of Arabia and Egypt the means of irrigation have remained as primitive as before Islam; they vary from scooping utensils served by hand or by animals to paddle-wheels propelled by the water itself. By means of locally differing refined techniques the water was conducted to the more remote fields; the water was dammed up by dykes and distributed by means of locks opened at regular intervals. In Iran the system of the so-called *kāriḡ* was applied from of old; these are subterranean water conducts which by means of a gradual drop conduct water to more distant fields; they were dug and kept up by means of wells which were constructed at fixed distances and connected underground.

Rice, the staple food of Southeast Asia, was cultivated only in very wet regions, such as Southern 'Irāḡ, Khurāsān and the provinces south of the Caspian Sea. Of the other food crops sugar-cane seems to have spread farther than before owing to Islam; the main regions of its cultivation were Southern Iran, 'Irāḡ, Yaman and the Indus valley. This product did not remain confined to local refinery and consumption, but it became an important export product, especially to the large urban luxury centres.

A similar cultivation for export developed for many kinds of fruit. Dates, the fruit of the date-palm so characteristic of all southern Islamic countries, and from of old an important article of food in Arabia, were transported in enormous quantities from the big cultivation centres in 'Irāḡ, Southern Iran and North Africa to the Mohammedan consumption centres, and even to territories outside Islam such as Central Africa. There were a great many varieties according to species and cultivation, but the best quality came from 'Irāḡ. Almost equally significant was the cultivation of grapes, likewise indigenous in Arabia but unlike date-growing also possible in regions at a higher latitude. Certain local species were transplanted over widely distant regions, and famous varieties were transported over great distances to the tables of the rich and powerful.

The largest supply of olive oil and olives came from Syria and North Africa where from of old the olive tree was indigenous. Elsewhere local needs were met by sesamum and rape oil.

As to the wealth of other fruits in the Mohammedan countries, mention must be made, apart from figs, apples, pomegranates, apricots, pears and nuts, of melons and especially watermelons which were exported in huge quantities from Iran to the west. Still rare and highly valued in the 9th century were lemons and oranges which were imported from India and cultivated as far as Egypt and Syria.

Furthermore, fruits, but especially flowers—violets, lotus flowers, daffodils, lilies, etc.—were important for the manufacture of perfumes, which was especially known in Southeast Persia. In the same region rosewater too was made as well as other scented waters which were exported even beyond the boundaries of Islam. This industry does not seem to have come up until Mohammedan times, and it largely superseded the aromatic plants for which Yaman had been so famous in former times.

The Mohammedan countries provided many possibilities for meeting the need of clothing among the various classes. The cheapest material with the widest spread was animal wool, supplied mainly by the nomad cattlebreeders. Yet in many places the wool industry reached a high level of refinement and specialization, especially owing to the example of the refined techniques applied to other and more precious materials. Among those materials we must first mention linen which was mainly produced in flax-growing Egypt and used there since time immemorial e.g. as swathing material for mummies. Centres of the linen industry were Fayyūm and several localities and islands in the Nile delta. Already during the Umayyad period the finer and coarser linen products of Egypt, mostly white but also dyed, gained renown in the Eastern Islamic countries. Not until the 10th century under the Fāṭimid caliphs this Egyptian industry would reach its highest development; in the meantime it had stimulated the development of linen manufacture in Southern Persia, which made use first of imported Egyptian flax and later of locally grown flax.

A third important clothing material, cotton, was again indigenous to the East. Probably already before Islam it had been introduced into Eastern Iran from India, and there it had given rise to an industry which began to provide Irāk and the West with its products. In the course of the subsequent centuries cotton-growing and cotton-manufacture also spread westward to Mesopotamia, and in the 10th century it had penetrated even into North Africa and Spain.

The cultivation and the weaving of silk also were of foreign origin. Under Justinian silk had become known in the Eastern Roman Em-

pire from China, and soon it had obtained a foothold in the Mohammedan countries. The centres of sericulture, however, were again in Iran, the spinning-mills being in the north and the weaving-mills in the south, which seems to point to early direct relations with China. In the Koran the dwellers in paradise are clothed in silk, evidence that this material was regarded as the acme of luxury. Afterwards the Sacred Law prohibited the wearing of silk clothes, but it was dodged by the manufacture of half-silk materials. During the Umayyad period, the richly varied materials—damask, brocade, satin—actually belonged to the luxury products which were manufactured for the palaces of the caliphs and the grandes.

The materials mentioned above were not only used for clothing, but also for decorating the distinguished and less distinguished dwelling-places. This, too, was a continuation of the mode of life among the Bedouins who manufactured their tent cloth and rugs mainly from camel's and goat's hair. But from of old there had also existed a tent and rug industry outside Arabia, especially in the area of Iranian culture and in Armenia in particular; the new orientation given by Islam guaranteed a new prosperity to this industry too, Armenia still holding first place but followed very closely by Western Iran and Turkestan.

To increase the artistic value of its products the tapestry and rug industry needed a great variety of dyeing materials, insofar as the original material did not possess a colour which satisfied traditional taste, such as black goat's hair and white linen. The principal dyeing materials for red were kermes and madder, both imported mainly from Armenia; kermes is of animal origin, and it was manufactured from insects bred for the purpose. More wide-spread and popular was indigo serving for blue dyes. Indigo originally came from India, but was soon cultivated in various Mohammedan countries such as Egypt, Southern Arabia and Southern Iran. A similar spread was obtained in the growing of saffron for yellow dyes. In addition, Yaman supplied a highly-valued vivid yellow dye-stuff derived from the "wars" plant.

Paper was originally a by-product of the textile industry. The art of manufacturing paper from scraps of vegetable tissues was introduced around the middle of the 8th century in Mohammedan territory by Chinese artisans who in 751 had been captured by the Muslims in the battle of Talās. In the same year the manufacture of paper started in Samarkand, and at the close of the century this industry was already

firmly established in Bagdad and especially in Damascus, from where this material, so important for book production, was also exported to Europe as "charta Damascena". Within a comparatively short period paper as a writing material superseded the Egyptian papyrus; the earliest Mohammedan paper is known from finds in Egypt.

The constitution of the soil in the various countries of Islam naturally left its imprint on the construction of houses. 'Irāk and the larger part of Iran belonged to the clay countries where building was carried out with tiles and bricks, as appeared already from the building history of Bagdad. Stone countries were mainly Syria and Northern Mesopotamia, while Egypt too, in the desert to the west of the Nile, possessed famous ancient quarries from which marmor could be obtained. Only the more valuable kinds of stone were transported over greater distances for the construction of important palaces and mosques. Among the other customary building materials wood was scarce nearly everywhere, owing to the physical features of the countryside with its few oases and plantations; this deficiency had to be supplied by the wooded regions on the borders of Asia Minor in Northern Syria, the south coast of the Caspian Sea with its rich vegetation, and the lands of the Sudan south of Egypt. The most valuable wood, however, was teakwood imported from India. Under Islam the finer species of clay continued to supply the indigenous pottery industry throughout the various regions. In times of renewed prosperity there developed from this industry in certain places famous porcelain and glass industries, the products of which have been unearthed in great variety for the first time in Sāmarrā.

Precious stones were the specialty of certain mountainous regions, such as rubies from Yaman and of Badakhshān in Bactria, turquoises from the mines of Khurāsān, and emeralds from the mines between Egypt and the Red Sea.

Gold and silver were distributed over the Muslim empire in such a way that the West only supplied gold and the East only silver. Gold came from the desert to the east of Aswān in Egypt, and was fetched by caravan from the Central African negro country on the Niger, where gold was believed to grow as a plant in the soil. The great silvermine was situated in the Hindukush mountains in Eastern Iran. In accordance with this situation before the coming of Islam the Byzantine region had a gold standard, while the representative coins of the Sassanid empire were always silver coins. Hence the empire of the

caliphs could have a double standard consisting of gold dinars and silver dirhams, at a ratio fixed every time in accordance with the available supplies. The gold- and silvermines were the hunting grounds of an army of fortune hunters who obtained the metal out of the soil by means of finer or coarser techniques. Probably from them the authorities obtained material for their coins, and the goldsmiths their supplies.

Of the other metals iron was mainly found in various parts of Iran, but also in Syria and North Africa, while copper in Islamic territory was mainly found in Transoxania. The forging of these metals had been known already in ancient Arabia where forging was a more or less mysterious trade, its artisans having a social position which was simultaneously feared and despised. Their most important products were weapons; the Yamanite armourers were famous for their products from of old, but the costliest weapons were imported from elsewhere. This utilization of iron and copper prevailed also in the flourishing period of the caliphate; everywhere, but especially in the iron regions, there were armourers busily exercising their skill according to different local traditions in which the manufacture of some sort of steel was also known. Since iron was after all a comparatively scarce mineral, the caravan trade had to assist in transporting iron to other regions; thus, iron from Turkestan was brought to the artisans of Irāk. Of some cities, Bagdad among them, it is told as a remarkable detail that the doors of their gates were made of iron.

Among non-metallic minerals mentioned especially by writers are salt from the Sahara, alum from the Sudan, borax from Armenia, used among other things in confectionery, and sal-ammoniac from the mountains of Transoxania and from Sicily. Coal was known too in Transoxania, but it was regarded rather as a curiosity; the fuel generally used was charcoal, also in the mountainous regions in the north where winter cold was known.

Underground water was discussed already on occasion of the irrigation systems. In the desert and steppe regions there existed the most diverse systems of digging wells; sometimes the water had to be transported by caravan. The cisterns and fountains, constructed in cities and on travel routes by rulers and prominent men for the benefit of the city population and of travellers, are evidence of the relatively high value of water, then as now, in the countries of Islam.

Nearly all the products mentioned in this inventory-like enumeration, as well as the industries built on them, were known already long

before Islam. But the similarity of the political and social pattern which permeated the empire of the caliphs did engender great potentialities in the acquisition and the use of the riches of nature; products and industries of regions lying far apart began to influence each other, and the big cities, in the first place those in 'Irāk served as stapleplaces of goods and became strongly developed industrial centres. The direction in which this development took place was mainly conditioned by the growth of the population and the demands of luxury and comfort. This did not mean, however, a notable change in industrial methods and processes; specially Mohammedan novelties, such as lustre painting on glazed ware, were an exception. More important is the import, stimulated by the new conditions, of animals little known beforehand, such as buffaloes, and of crops such as rice and cotton, and certain Indian fruits.

JEHUDA LION PALACHE *)

De omstandigheden, waaronder onze vriend Palache van ons is heengegaan, zullen immer een onuitwisbaar deel van onze gedachtenis aan hem blijven. Hij deelt dit aandenken met de miljoenen van zijn volk, die als offers zijn gevallen van de mensontaarding, niet alleen in de nu afgelopen oorlog, maar ook in de vroegere eeuwen van duisternis, die nu zijn wedergekeerd.

Doch laten wij trachten het herinneringsbeeld van onze vriend een ogenblik vrij te maken van de sluier der verschrikking en hem te zien zoals hij te midden van ons was, bedenken wat hij voor ons geweest is en wat wij aan goede menselijkheid van hem mochten ontvangen. Er is daarin waarlijk genoeg om ons boven de tijdelijkheid van onze hevige verbittering te verheffen.

Als ik mij niet vergis, was het in 1910, dat ik Palache leerde kennen als medecollegiant by Snouck Hurgronje. Wij paradeerden op de Witte Singel vóór Snouck's huis tot het 9 uur was, en wij zeiden „U” tegen elkander. Maar dat duurde niet lang, want de volgende dag zei hij: „Voor een dubbeltje mag je Jij zeggen”. Dit was kenmerkend voor zijn gemoedelijke vriendelijkheid. Met een dergelijke spontane en hartelijke zakelijkheid wist hij bij allerlei gelegenheden onnodig formalisme te doorbreken en een ongedwongen sfeer om zich heen te scheppen, die de omgang met hem zo aantrekkelijk en zo blijvend maakte. De zo in de studiejaren onstane banden zijn daarom hecht gebleven, zonder dat zij ooit tot geestelijke inbeslagneming geleid hebben.

De gezamenlijke collegetijd was maar luttele jaren en werd gedomineerd door Snouck's figuur, die tot verering, maar ook vaak tot verzet noopte. Palache zorgde er mede voor, dat dit verzetsgevoel geen obsessie werd. Hij had begrip voor de menselijkheid van de merkwaardige verhouding tot onze leermeester. Maar ook hij, als vele anderen, ontkwam niet aan de suggestie van Snouck's persoonlijkheid. Ook aan hem bleven in latere jaren imitatieve trekjes in woord en gebaar eigen, die hun oorsprong vonden in de omgang met de sjeich.

Een hernieuwd contact met Palache ontstond voor mij, toen ik, uit Turkije terruggekeerd, met hem en Dr. van Arendonk de ge-

*) Herdenkingsrede, gehouden in October 1945 voor het Oosters Genootschap.

zamenlijke Arabische lectuur opnam, die wij vanaf 1923 meer dan twintig jaren zo goed als ononderbroken hebben voortgezet. Hij heeft die bijeenkomsten eenmaal schertsend miniatuurcongressen genoemd, en dat waren zij inderdaad, omdat zij, behalve tot wetenschappelijke vorming ook tot grote persoonlijke verrijking gelegenheid boden. Het initiatief tot de leeskrans was geheel van Palache uitgegaan, en dat hij al die tijd heeft voortgeduurd, af en toe onder deelneming van anderen, is zeer zeker vooral aan zijn trouwe volharding te danken.

Zijn trouw werd ongetwijfeld gevoeld door zijn diep gevoel voor geestelijke traditie, dat in zijn gehele levenshouding, niet minder dan in zijn wetenschappelijk werk, vaardig was. Voor iemand, die zoals ik aan een van traditie weinig bewust milieu ontstamde, was het inderdaad zegenrijk en vormend een zo sterk traditioneel voelend mens te ontmoeten. Voor wat ik in dit opzicht in de omgang met Palache leerde verstaan zal ik hem in de eerste plaats dankbaar blijven.

Ik hoop op Uw toegevendheid te kunnen rekenen, wanneer ik tot nu toe zo persoonlijk ben geweest. Het recht daartoe meen ik te mogen ontlenen aan de omstandigheid, dat mij verzocht is in Uw kring mijn vriend te herdenken, een verzoek waardoor ik mij, met het oog op de waardevolle persoonlijkheid van de herdachte geëerd, maar ook met verantwoordelijkheid belast gevoel.

Dat in Palache het besef voor culturele traditie zo sterk sprak, was niet meer dan natuurlijk. Hij vertegenwoordigde, na zijn vader, een oud geslacht, dat gezeteld had in Marokko en Andalusië en in het begin van de XVIde eeuw naar Amsterdam was gekomen, waar zijn voorouders mede bijdroegen tot de bloei der Israëlitisch-Portugese gemeente en daardoor ook van de hoofdstad zelve. Maar niet minder door de keuze van zijn levensarbeid had hij de traditie gehuldigd. De oeroude Joodse geleerdheid had hij al vroeg in de omgang met zijn vader, de opperrabbijn, leren kennen. Hij verhaalde van wandelingen in zijn kinderjaren met zijn vader, waarbij hij al vragend zijn kennis van het Hebreeuws opdeed aan de voorkomelikheden des dagelijkschen levens. Later was hij zijns vaders leerling in het Portugees-Israëlitisch Seminarium te Amsterdam. Evenwel, zijn leven zou niet tot die sfeer beperkt blijven. Met de Joodse wetenschap ging hij humanistische levensvorming verbinden door zijn studie in de Klassieke Talen te Amsterdam. Na zijn candidaatsexamen kon hij zich op bredere basis aan de studie van de Semitische philologie

wijden, te Leiden, waar vooral Snouck, Wensinck en Thierry zijn leermeesters waren.

In deze tijd moet de vorming van zijn religieuze persoonlijkheid zich voltrokken hebben. Het was niet de voorvaderlijke orthodoxie, die hij voortzette, hoe zeer hij zich ook aan de kringen zijner afkomst verbonden bleef gevoelen. Hij beleed een humanistisch liberalisme. Hij was hierin een kind van zijn tijd, maar de Joodse traditionele inslag maakte hem toch tot een zeer bijzonder vertegenwoordiger van deze nobele, nu in gevaar van ondergang verkerende geesteshouding. Hij was geen Spinozistische figuur, want in metafysische contemplaties heeft hij zich nooit begeven, maar dat godsdienstige ontvankelijkheid diep in hem was heeft hij, vooral in de laatste tijden zijns levens, door zijn plichtsbetrachting bewezen.

Palache's dissertatie over het „Heiligdom in de Voorstelling der Semitische volken", waarmee hij in 1920 „cum laude" promoveerde tot doctor in de Semitische Letteren, was in hoge mate zijn eigen werk en vrucht van eigen belezenheid. Een uitsluitend in de Joodse traditie staand geleerde zou zulk een werk nooit hebben kunnen schrijven. Maar iemand, die niet aan de traditie aandeel had, zou dat zéker nooit hebben kunnen doen. Zijn kennis van de oud-Hebreeuwse litteratuur was toen reeds eerbiedwaardig; in de eerste plaats zijn Bijbelkennis. Hij kende het Oude Testament voor een groot gedeelte woordelijk van buiten en wist terstond de betreffende plaatsen uit het geheugen te vinden, wanneer onze Arabische lectuur hem etymologisch of semasiologisch parallele plaatsen te binnen bracht.

Die diep gefundeerde litteratuurkennis stelde hem ook in staat in 1922 zijn „Inleiding in den Talmoed" te schrijven. Hij woonde toen nog, na zijn huwelijk, in Leiden, waar hij zijn studie kon voortzetten tegelijk met zijn leraarschap in de Klassieke talen aan het Haagse gymnasium. In 1925 volgde daarop zijn hoogleraarsbenoeming te Amsterdam, zowel in de Theologische als in de Litteraire Faculteit.

In Amsterdam heeft Palache gelukkige jaren doorleefd. Hij heeft er zijn gezin zien opgroeien en zich een gerespecteerde positie verschafft aan de Universiteit. Maar ook daarbuiten was hij intens werkzaam voor Joodse sociale en religieuze instellingen. Hij gaf op beide terreinen zijn gehele persoon en had in het begin zo maar weinig gelegenheid tot uitgebreider wetenschappelijk werk. Zijn collega's waardeerden zijn nauwkeurigheid en toewijding, zijn leerlingen zijn voorkomendheid en hulpbereidheid. Behalve Hebreeuws en Hebreeuwse antiquiteiten doceerde hij ook steeds verscheiden uren in de

week Arabisch en Syrisch. Vele kleinere wetenschappelijke problemen trokken in die tijd zijn aandacht, maar toenmaals kwam hij niet tot systematische ordening. Toch gaan zijn lexicographische en semasiologische studiën — waarvan hij in deze kring een proeve heeft gegeven en die hij in copie aan het Oud-Testamentisch Werkgezelschap heeft nagelaten — ongetwijfeld al tot de eerste Amsterdamse jaren of misschien nog vroeger terug. In later jaren heeft hij tijd gevonden enige problemen uit te werken en zijn daarin ingenomen standpunt met hartstocht te verdedigen. Het Oosters Genootschap heeft in Januari 1940 een levendige vergadering met Palache als inleider gehad.

Waar nodig wist hij met gezag op te treden. Door karakter en ambt was hij zo de aangewezen man geworden om het voorzitterschap der Portugees-Israëlitische Gemeente te bekleden, een functie, waarvan hij zich tot zijn heengaan op waardige en moedige wijze gekweten heeft. Eenmaal, in de dertiger jaren, heeft hij met zijn echtgenote in opdracht een reis naar Palestina gemaakt, een reis, die hem grote voldoening heeft geschonken. Ook in Palestina is hij zijn liberale levenshouding getrouw gebleven. Bij zijn bezoek aan de Klaagmuur te Jeruzalem veinsde hij geen Hebreeuws te kunnen lezen, ten einde zich te kunnen onttrekken aan het ritueel der Joodse bezoekers, dat men van hem verwachtte.

Wie Palache's kijk op het mensengebeuren en zijn opvatting van de culturele traditie wil leren kennen moet een blik slaan in de Historische Inleiding, waarmede hij zijn in 1935 verschenen verzameling van vertaalde uittreksels uit de Hebreeuwse literatuur heeft voorzien. Diep doordrongen toont hij zich hier van de stoffelijke en geestelijke verbondenheid van de mens aan zijn voorgeslacht en van de geringe betekenis van de enkeling. Voor ons ligt er iets vertroostends in deze beschouwingen, die, misschien juist omdat men ze zo zelden uit zijn eigen mond hoorde, innig beleden werden. De mensheid moet voltooien wat de enkeling onafgemaakt heeft laten staan; hij is niet meer dan een schakel in het geestelijke werk der eeuwen. Zo vatte Palache de onsterfelijkheid op.

Zou deze geloofshouding hem in de laatste moeilijke jaren tot een burcht zijn geweest, als de God Jacobs? Ik vermoed van wel. Toen de eerste gevolgen der Duitse Jodenhetze in ons land merkbaar werden, heeft hij zich eerst zeer ongelukkig gevoeld en gaf hij soms uiting aan een opstandigheid, die de vertwijfeling nabijkwam. Doch naarmate de dreiging en de slagen erger werden, heeft hij zijn geestelijk evenwicht herwonnen, niet in actieloze berusting, maar in aanvaarding

van de taak, die hij wist, dat zijn positie hem oplegde. Voor de leden zijner gemeente is hij een bemoedigend voorbeeld geweest tot het laatste toe.

Hij zomin als wij hebben ooit gedacht, dat dit alles zou eindigen zoals het geëindigd is. Het was ook niet te geloven. Misschien heeft hij het onbewust voelen aankomen. „Sie haben mit den Juden gehandelt als wären sie Hunde und nicht Menschen” zo citeert hij Luther in zijn bovenvermelde Inleiding. Maar dit is nog veel te zacht om uit te drukken wat nu gebeurd is.

Toch, in één opzicht zal het geloof van deze beminnelijke geleerde en ambtsdrager in de mensheid niet beschaamd zijn. Zijn werk en geest blijven inderdaad werkzaam in de geestelijke herbouw en opbouw van ons en van wie na ons komen.

C. VAN ARENDONK *)

(13 Maart 1881—14 December 1946)

Cornelis van Arendonk werd op 13 Maart 1881 te Herwijnen geboren als oudste zoon in een familie van gezeten landbouwers. Vroeg gebleken aanleg tot studie deed besluiten hem op te leiden tot protestants theoloog. Zijn middelbare studie volbracht hij aan het gymnasium te Kampen, waarna hij in 1899 als theologisch student in de Utrechtse Universiteit werd ingeschreven. In Utrecht geraakte hij via het Hebreeuws allengs meer onder de bekoring van de studie der Semietische talen, vooral van het Arabisch, dat daar toenmaals door Houtsma gedoceerd werd. Zoo zeide Van Arendonk, naar wij mogen vermoeden na lang beraad, de theologische studie vaarwel en ging, na zijn propaedeutisch examen, in 1904 naar Leiden, om zich daar onder leiding van De Goeje, Oort, Eerdmans en Marquart verder in de Semietische talen te bekwamen. In 1907 werd Snouck Hurgronje zijn leermeester voor het Arabisch en dit zal er nog meer toe hebben bijgedragen Van Arendonk tot een uitgesproken Arabicus te maken. In ieder geval werd hij wat hij tot het laatst gebleven is, een Leids oriëntalist, meer Leids en Nederlands nog dan zijn meeste vakgenoten, daar hij nooit voor zijn studie een buitenlandse universiteit bezocht heeft.

Toen hij drie jaar oud was had zich bij hem een aandoening aan het rechteroog geopenbaard, die tot onmiddellijk ingrijpen noopte, als gevolg waarvan hij sindsdien slechts het gebruik van het linkeroog had. Het is mogelijk, dat dit gebrek in de loop der jaren Van Arendonk's neiging tot inzichtzelfgekeerdheid en critische houding jegens zichzelf heeft versterkt. In zijn jonge jaren heeft het hem niet belet het pianospel en de schilderkunst te beoefenen en ook niet verhinderd een gezien lid van het Utrechtse theologengezelschap „Borger” te zijn, gelijk hij daarna ook te Leiden in het Corps en daarbuiten zich een goede vriendenkring schiep.

In Leiden ontwikkelde Van Arendonk zich tot een ernstig geleerde, die zich de resultaten van de XIXde-eeuwse Semietistiek geheel eigen maakte en daarbij de omgang en de vriendschap van

*) Uit het Jaarboek der Koninklijke Nederlandsche Akademie van Wetenschappen 1946-1947.

Snouck Hurgronje genoot, misschien mag hier gezegd worden onderging, evenals enkele jongere oriëntalist: Snouck had grote eerbied voor de persoonlijkheid zijner studenten, maar dit kon niet verhinderen dat verscheidenen hunner in de ban van zijn suggestieve persoonlijke omgangsvormen kwamen en uitdrukkingwijzen van de meester in woord en gebaar gingen overnemen, die hun zijn bijgebleven. Ook in dit opzicht is Van Arendonk een leerling van Snouck geworden.

Zijn wetenschappelijke belangstelling kan niet dan oppervlakkig door Snouck zijn geleid, in overeenstemming met de typisch Hollandse schroom, die de grondlegger der moderne Islamwetenschap ervan weerhield school te maken. Wel was Van Arendonk diep geïnteresseerd in de godsdienstgeschiedenis van de Islam, maar bij hem lag de nadruk veel meer op de geschiedenis en wel in het bijzonder die van het sektenwezen. Zo kon hij een zeer gelukkige keus doen voor zijn dissertatieonderwerp.

Het was een hoofdstuk uit de vroegste geschiedenis van de Sji'itisch-sectarische beweging der Zaidieten, die in de IXde eeuw van onze jaartelling de grondslag legden van een religieus-politieke heerschappij in Jemen, welke heden ten dage nog bestaat in het imamaat van San'a. Het proefschrift, waarop Van Arendonk in 1919 promoveerde, was getiteld „De opkomst van het Zaidietische Imamaat in Jemen” en vestigde voorgoed zijn naam als degelijk Nederlands oriëntalist. Het onderwerp stond tegelijkertijd in de belangstelling van Duitse en Italiaanse geleerden, maar Van Arendonk had het geduld om door de studie van onuitgegeven handschriften de voorgeschiedenis en de grondslagen van deze voor de Islam-geschiedenis zo belangrijke beweging te analyseren. In zijn aanbeveling van het werk voor publicatie in de reeks der De Goeje-stichting roemt Snouck de ongewone rijpheid en het critisch oordeel van de schrijver.

Ook Snouck was in zijn tijd begonnen met godsdiensthistorische en historische studiën, in de lijn van de oriëntalistische school, waarvan zijn leermeester Nöldeke de exponent was; zijn aard en temperament zouden hem echter brengen tot het inslaan van geheel nieuwe wegen. Van Arendonk was gevoed met dezelfde traditie, maar evolueerde niet verder, gelijk dit wel het geval was bij zijn jaaren studiegenoot Wensinck. Niet alleen historische en godsdienstige, maar ook geographische studiën behoorden tot die traditie en Van Arendonk is dan ook later een erkende autoriteit voor de geographie van Zuid-Arabië in vroeger en later tijd gebleven.

Kort na zijn promotie is hij Th. G. Juynboll opgevolgd als adjutor Interpretis Legati Warneriani, welke functie tegelijk geregeld en gemoderniseerd werd door haar te verbinden met het conservator-schap voor Oosterse handschriften in de Leidse Universiteitsbibliotheek. Van Arendonk was hier zeer op zijn plaats. Dat de omgang met handschriften hem lag had hij door zijn dissertatie bewezen. Waarschijnlijk bezat hij ook de ideale eigenschappen van een uitgever van handschriften, dezelfde aanleg, die De Goeje leidde, naar de woorden van Snouck Hurgronje in diens levensbericht, „meer tot ontginning en fundering dan tot het optrekken van gebouwen uit deels voorlopig materieel van halve stevigheid”. Inderdaad is Van Arendonk begonnen met de bewerking van zeer veel handschriften, waarvan de afschriften in zijn wetenschappelijke nalatenschap gevonden zijn; zijn hyper-critische instelling heeft hem echter blijkbaar verhinderd een der begonnen uitgaven af te werken. Een werk, waarmede hij al vrij ver op weg was, heeft hij laten liggen, toen hem bleek, dat een buitenlands geleerde bezig was een uitgave van dezelfde tekst voor te bereiden.

Overigens bezat hij in sterken mate een gevoel van ontevredenheid met zijn werk, van nog niet klaar te zijn, en dit weerhield hem telkens weer van afsluiting en afronding van bepaalde studiën. Daardoor is hij er slechts betrekkelijk zelden toe gekomen bepaalde detailstudies te geven, de meeste daarvan in de Encyclopaedie van de Islam. Zij zijn voorbeelden van grondigheid en eruditie. In de tijd dat hij zelf, kort na zijn promotie, mede-redacteur der Encyclopaedie was, stelde hij op dit punt aan de andere medewerkers vaak zo hoge eisen, dat de praktische voortgang van de uitgave daardoor bemoeilijkt werd, weshalve hij deze voor hem onbevredigende werkzaamheid op moest geven. De enkele boekbeoordelingen, die Van Arendonk gegeven heeft, geven blijk van dezelfde conscientieuze ernst, waarvan bovendien ook zijn hierop betrekking hebbende bewaarde aantekeningen welsprekend getuigenis afleggen.

Kwam aldus zijn wetenschappelijke arbeid zelden tot het niveau der gedrukte openbaarheid, hij kwam in andere vorm ten goede aan de zeer velen, die in binnen- en buitenland in zijn functie of als vrienden met hem in aanraking kwamen. Hij was een van het welbekende type van conservatoren, die zichzelf en hun tijd niet spaarden om anderen de gewenste in- en voorlichting te geven. Door zijn bemiddeling vonden de schatten van de Leidse handschriftenverzameling overal heen hun weg, terwijl zij, die op het

Legatum Warnerianum kwamen werken, zich ieder ogenblik van zijn bereidheid konden overtuigen om hun moeilijkheden op te helderen. Ten slotte schroomde men zijn hulp in te roepen, wetend, dat men daarmee een niet meer te bezweren geest van hulpvaardigheid opriep, gelijk aan de dienende geesten van de Duizend-en-één-Nacht.

Van Arendonk's lexicographische kennis van het Arabisch scheen onbegrensd. Ik heb het voorrecht gehad gedurende meer dan 20 jaren met hem en de diep-betreurde J. L. Palache regelmatig Arabische eruditielectuur te bedrijven. Wij erkenden in hem gaarne onze meerdere; zijn weifelend voorgedragen verzekerdheid kon ons sinds lang niet meer om de tuin leiden. Zijn geleerdheid gaf hem onbetwist recht op het hoogleraarschap in het Arabisch, dat hij virtueel ook zeker bezat, onafhankelijk van vacatures.

Onwaardeerbare diensten heeft Van Arendonk bewezen aan anderen, die zich met uitgaven van teksten of andere publicaties bezig hielden en zijn deskundige voorlichting behoefden. Als voorbeelden wil ik alleen wijzen op de hulp door hem verleend aan Van der Meulen en Von Wissmann, vooral bij het samenstellen van de bij hun werk gevoegde kaart van Hadramaut. En voorts op zijn acribische laatste contrôle van de proeven van de door Wensinck begonnen Concordantie op de Mohammedaanse Traditie-litteratuur. Van Arendonk was overigens ook medewerker geweest bij het moeizaam exciperen der voor de Concordantie gebruikte teksten.

Eenmaal heeft hij een reis naar Egypte ondernomen en, gedurende een verblijf in Cairo in de winter 1928-1929, wetenschappelijk materiaal voor zich en anderen verzameld. Twee jaren na zijn terugkomst werd hij door een ziekte overvallen, waaruit hij een blijvende aandoening van het hart heeft overgehouden. Onder invloed van deze kwaal heeft zijn arbeidslust sterk geleden. Het heeft hem echter niet verhinderd zijn werk aan de bibliotheek voort te zetten.

Hij gevoelde zich ook voor alles bibliotheekman. Met zijn bibliografische kennis wist hij de Oosterse boekerij te Leiden geheel op het peil te houden, dat bij deze instelling vereist was. En in het intern bibliotheekbedrijf was hij een geziene figuur, die zich door fijngevoelige omgang de hartelijke sympathie van zijn medewerkers wist te verschaffen.

In veel opzichten kan Van Arendonk vergeleken worden met die andere grote oriëntalist Gerlof van Vloten, vrijgezel gelijk ook hij. Beider namen zullen onder de goede vertegenwoordigers van de Leidse oriëntalistische traditie genoemd blijven.



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